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ABSTRACT

This study, conducted in Indiana, describes sources of teacher supply, various paths individuals take into teaching, and how the paths have changed over time. Findings are based on: a computerized file containing a record for each Indiana teacher from 1965 to 1988; a survey of all Indiana teachers who taught in school year 1987-88, but not in the previous year; and a survey of new 1988-89 hires. New and returning teachers are profiled and paths to teaching are detailed. The objectives of the study are: to assess the current teacher supply and demand in Indiana; to determine and recommend policies that will ensure an adequate supply of certified teachers; and to provide the Indiana State Department of Education with the capability of monitoring and performing future assessments of teacher supply and demand. Following a preface, summary, acknowledgements, figures and tables, the report is organized into four sections: (1) Introduction; (2) The Changing Profile of Newly Hired Teachers; (3) Profile of Teachers in the Survey Sample; and (4) Conclusions including historical trends, survey results, and policy implications. A survey of newly hired teachers in Indiana public schools, 1988-89, and a 1989 Indiana teacher survey are appended. (LL)

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New and Returning Teachers in Indiana

Sources of Supply

Sheila Nataraj Kirby, David W. Grissmer, Lisa Hudson

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PREFACE

This report is one in a series of studies that report findings regarding teacher demand and supply in Indiana. These findings are based both on historical data and on a survey of new 1988–89 hires that was fielded during May-June 1989. This report profiles new and returning teachers and details their paths to teaching. Other reports in this series examine experiences with the Indiana Beginning Teacher Internship Program (Hudson, Grissmer, and Kirby, 1991), and patterns of teacher attrition over time (Grissmer and Kirby, 1991).

These analyses were undertaken as part of a larger study of teacher supply and demand in Indiana funded by Lilly Endowment Inc. The objectives of the study are to assess the current state of teacher supply and demand in Indiana, to determine and recommend policies to ensure an adequate supply of certified teachers, and to provide the Indiana State Department of Education with the capability to monitor and perform future assessments of teacher supply and demand.

The results presented here should be of interest to educators and policymakers concerned with issues of teacher supply and demand.

SUMMARY

There is increasing recognition that improving the quality of our nation's educational system must also entail improving the quality of the teaching force (Carnegie Forum on Education and the Economy, 1986; National Governors' Association, 1986). Improving the quality of the teaching force requires an understanding of the teacher labor market and the forces that determine the current supply and quality of entering teachers.

Analyzing and predicting teacher supply is a complicated process for two reasons. First, individuals enter teaching through a diverse set of paths. Sources of new teacher supply include migrating teachers from other states, returning teachers, new teachers who entered and graduated from school at older ages, and those transferring from other occupations, in addition to the more traditional newly graduated 20–24 year olds.

Second, teacher supply is a function of the choices individuals make at various points in their life and career cycles. Without a better understanding of the factors affecting these choices, it would be difficult to gauge future trends in teacher supply and, therefore, the extent or likelihood of possible shortages, or to design policy prescriptions to deal with potential problems in supply.

The report draws from two unique sources of data describing Indiana teachers. The first is a computerized file containing a record for each Indiana teacher in each year from 1965 to 1988. The second is a survey of all Indiana teachers who taught in school year 1987–88, but who did not teach in the previous year. Specific questions that we address in this and companion reports are:

1. What are the sources of teacher supply and the paths into teaching taken by newly hired teachers? How have these paths changed over time?
2. How satisfied are teachers with their entering or reentering teaching experience? What are the primary sources of dissatisfaction?
3. What are their short-term and long-term career plans? What factors are important in these decisions?
4. What are new teachers' experiences in and opinions of the Indiana Beginning Teacher Internship Program?

The first topic is the focus of this report.

HISTORICAL TRENDS IN THE SOURCES OF TEACHER SUPPLY

New hires tend to be drawn both from the experienced teacher reserve pool as well as from the pool of inexperienced, "new" teachers who are either entering straight from school or have spent some time in the labor market in other occupations. The evidence on the relative proportions of these types of teachers is rather surprising: Contrary to popular belief and the assumptions underlying several simplistic models of teacher supply, experienced teachers today account for a larger proportion of new hires than inexperienced teachers. The relative magnitudes of these sources of supply have changed markedly over time.

- Inexperienced teachers are now a much smaller proportion of annual new hires; where before they accounted for over 60 percent of new hires in 1966–67, they constitute only 40–45 percent of new hires in recent years.
- Returning teachers have grown as a proportion of new hires from 15 to 30 percent.
- Migrating teachers (defined as experienced teachers who have not taught before in the Indiana public school system—they could be teachers from out of state or transfers from private schools) have remained a relatively stable proportion of new hires at 20–25 percent.

One explanation for this trend is that experienced teachers form a supply-constrained pool preferred by school districts or protected in rehiring by union rules or simply with better job search and interviewing skills. An alternative explanation is that the shift from inexperienced to experienced teachers simply reflects supply constraints on both types of teachers. More inexperienced teachers were available when demand was high, and this pool declined as demand declined.

Another trend that deserves attention is the gradual aging of the newly hired cohorts. The aging of the migrating and returning pool of teachers probably reflects the aging of the teaching force itself. Since the number of new hires has sharply decreased in the last 15 years, the average age of the teaching force has increased, and is currently at 41 years. As the teaching force itself gets older, so do the populations of migrating and returning teachers; however, this does not explain why inexperienced teachers themselves appear to be entering teaching at an older age.

All of these trends at least partly result from the changing role of women in the labor force over time. For example, older women who tended in earlier times to return part-time or not at all are now returning to professions full-time, and more women in general are choosing to work, partly because of society's changing mores and partly because of economic reasons. As we have shown in our report on teacher attrition (Grissmer and Kirby, 1991), men's real incomes have fallen over the time period being studied and women's labor-force participation increased dramatically from 43 to over 70 percent by 1987.

A simple decomposition analysis shows that the trends regarding the gender and age composition of new hires over time can mostly be attributed to the changing mix within each group of newly hired teachers, i.e., entering and reentering teachers have a different profile than they did earlier.

EVIDENCE FROM THE SURVEY

Our data present a picture of a fluid, responsive, and dynamic teacher labor market, but one also characterized by a strong homing instinct to teach in the state where one attended high school or college. The labor market is fluid in the sense that individuals flow between states and between public and private schools, and also into and out of and back into teaching careers. These flows are particularly prevalent early in the career.

The data show that the sources of supply of new hires are both diverse and changing over time. Sources of new hires include:

- Newly graduated young teachers, who currently account for only between 20–25 percent of teachers hired to fill annual vacancies.
- Inexperienced, older teachers, who make up another 20 percent of new hires. These appear to be individuals who delay entering teaching until over 25 years of age—they try other occupations, choose not to be part of the labor force, are not offered teaching jobs, obtain certification much later than their undergraduate degree, or enter and complete college at an older age.
- Migrating teachers, who constitute another 20–25 percent of new hires. About 40 percent of migrating teachers are really "returning home," having gone to high school or college in Indiana or taught in Indiana earlier.

- Returning Indiana teachers, who constitute another 30 percent of current new hires.

The data show that only about 45 percent of inexperienced teachers consist of individuals 20–25 years old entering teaching directly after college. Another 13 percent are individuals receiving their bachelor's degrees at age 25–45, but who enter teaching directly after obtaining their degree. About 12 percent of inexperienced teachers enter one year after receiving a bachelor's degree. Those entering two or more years after receiving a bachelor's degree are further subdivided into two groups: those who received their degree and Indiana certification at the same time (within one year of their degree) and those who had a significant delay in obtaining their certificate. The first group are presumably education majors who have delayed entry; the second group may be those with noneducation majors who need additional coursework before certification. The former group constitutes about 9 percent of all inexperienced Indiana teachers; the latter constitutes about 18 percent.

PROFILE OF NEW HIRES AND PREVIOUS WORK HISTORY

Our purpose in fielding the survey of new teachers was twofold: first, to obtain information regarding the teacher labor market and the sources of supply that would be useful in modeling teacher supply; second, to paint a richer, more detailed picture of new hires than is possible with historical data. Some of the data presented here are purely descriptive and set the context for other analyses focusing on first-year experiences and future career plans.

For the purposes of this analysis, we found it useful to categorize teachers into (a) new, inexperienced teachers (46 percent of the 1988–89 cohort of new hires); (b) former Indiana teachers, returning to the Indiana public school system (28 percent); (c) migrating teachers who had taught most recently in out-of-state *public* schools (16 percent); (d) in-state transfers from private schools in Indiana (8 percent); and (e) out-of-state transfers from *private* schools outside of Indiana (3 percent).[1]

Most of the teachers, with the exception of the new, inexperienced teachers, have between one and five years of total teaching experience, although between 15–25 percent have between six to ten years of experience. The mean years of teaching experience are surprisingly similar across the other four groups, between 6.5 and 7.4 years.

[1]These numbers do not add to 100 percent due to rounding.

When asked about their main activity the previous year, the teachers' responses differed depending on the type of teacher. Well over half of the inexperienced teachers were in school; teachers transferring from out-of-state or private schools, of course, tended to be employed full-time. About a fifth of the returning teachers were homemaking in the prior year and another third were working full-time. About 30 percent were working part-time.

Data on the former occupations of these teachers help delineate a reserve pool for teachers and help pinpoint occupations to which teachers might be attracted or from which they could be recruited. Of those employed full-time, among the inexperienced teachers we find that about a third were working in teaching either as substitutes or as part-time teachers. Fewer than 20 percent were working in administrative support positions or service occupations, and another 6 percent worked in managerial/administrative positions. Among returning Indiana teachers, about 40 percent were working in education, usually as substitutes or aides. About 11 percent were in managerial/administrative positions and an equal proportion were in sales. About 7 percent were postsecondary teachers. Among the other types of teachers, the overwhelming majority were working as classroom teachers. We find that the median time that our respondents had spent in this prior occupation is about three years.

In accordance with simple economic theory, we find that over 80 percent of those working *outside* of elementary/secondary education rate their current job as better than the previous job and this difference is statistically significant. Among this group, the teaching job was rated highly in terms of salary, work schedule, intellectual challenge, emotional rewards, and long-term job security. Again, several of these differences are significant. Influence over workplace policies, job stress, and safety of environment appeared to be matters of concern.

Reasons for the break in the teaching career as well as reasons for reentry or transfer may provide important information to school districts in determining whether there are special steps that could be taken to reduce the one and increase the other. However, the primary reason for the break in teaching appeared to be pregnancy/childrearing and this, of course, was predominantly among women. Among Indiana teachers, about 15 percent had left to pursue another career, and another 6 to 7 percent left because of school staffing action or merely to take a break from teaching. Among out-of-state teachers, the next most frequent reason for the interruption in teaching, after pregnancy/childrearing, was the move to Indiana, either to accompany a spouse or for other reasons.

The reasons for reentering teaching in 1988–89 are much as one would expect from the reasons given for leaving teaching. The four most frequently mentioned reasons were: (a) increased need for extra family income; (b) lessening of childcare responsibilities; (c) dissatisfaction with other job/activity; and (d) the first year a job was offered. Among out-of-state teachers, completion of Indiana certification requirements also ranked high.

The Indiana labor market appears to be rather widespread. Well over half of the teachers come from states other than those adjacent to Indiana.

The most important reason for transferring to the Indiana public school system appears to be related to a spouse's job transfer to Indiana. A little over one-quarter of these teachers preferred to live in Indiana. Among these, about two-thirds had graduated from an Indiana college.

POLICY IMPLICATIONS

Overall, the teacher labor market appears to be fluid and responsive to demand and labor force trends such as the greatly increased labor force participation of women. However, given our evidence that teacher attrition is at an all-time low and that both new hires and the overall teaching force are becoming increasingly older, there may be some cause for concern in the future as the reserve pool starts to decline and increasing numbers of teachers are required to fill vacancies created by retirements. This issue, along with other trends in teacher demand and supply, is the subject of a forthcoming report.

The data we have presented here lend themselves to some policy implications. First, a greater degree of cooperation between school districts and businesses with wider dissemination of teaching opportunites in the state might prove to be a cost-effective method of recruiting. Second, the reserve pool of teachers appears to be larger than we had originally thought and it may prove possible with low-cost certification programs and scholarships to attract mid-career switchers, as is being done in a number of states. Third, it seems clear that some effort needs to be made to attract young people into teaching to offset the vacancies that are likely to occur 10 to 15 years down the road as older teachers get closer to retirement. This is not likely to be a problem unique to Indiana. Fourth, at least insofar as our data show, there seems little states can do to prevent breaks in service for teachers who leave and later return to teaching. The majority of these appear to leave for personal reasons that are

unlikely to be responsive to policy changes. However, we do not mean to imply that the attrition of younger teachers from teaching is not amenable to policy reform. There is ample evidence to show that these teachers leave for a variety of reasons, primarily salary, the work environment, and the extracurricular demands of teaching. Certainly, we need to devise policies to attract and retain these teachers, who otherwise are likely to be lost to teaching.

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I. INTRODUCTION

Teachers have come under increasing scrutiny over the past several years as part of the continuing national debate on the quality and appropriateness of American schooling. There is increasing recognition that improving the quality of our nation's educational system must also entail improving the quality of the teaching force (Carnegie Forum on Education and the Economy, 1986; National Governors' Association, 1986). Improving the quality of the teaching force requires an understanding of the teacher labor market and the forces that determine the current supply and quality of entering teachers. A better understanding of this group also is critical to predicting the likelihood of a shortage of certified teachers in the future.

Predicting teacher supply is a complicated process for two reasons. First, individuals enter teaching through a diverse set of paths. Fewer than one-quarter of teaching vacancies are filled by individuals graduating from college with education degrees at ages 22–24. Supply models must contend with a much richer mix of sources of teacher supply. These sources include migrating teachers from other states, returning teachers, new teachers who entered and graduated from school at older ages, and those transferring from other occupations.

Second, teacher supply depends largely on the choices individuals make at various points in their lives and career cycles. To accurately model these decisions, we must understand what factors influence some to enter teaching, how often and for what reasons those who do enter teaching migrate from one teaching job to another, and which teaching conditions serve as inducements to leave and reenter or permanently leave teaching.

PREVIOUS RESEARCH

Previous research in the area of supply is rather sparse. Some studies have attempted to measure the influence of various factors such as salary, working conditions, and education on the propensity to enter teaching; others have merely enumerated the different sources of supply and attempted to use such information in teacher supply and demand models.

Factors Affecting Supply of Teachers

Manski (1987) and Zarkin (1985) have shown that the decline in the probability of obtaining a teaching position combined with the decline in the competitiveness of teaching salaries led to a decline in the proportion of college students majoring in education during the 1970s and early 1980s. Schlechty and Vance (1983) and Weaver (1983) show that college graduates with high scores on the Scholastic Aptitude Test (SAT) are less likely to enter teaching than graduates with lower scores. Recent work by Murnane and Schwinden (1989) examines the relationship between standardized test scores on the National Teacher Examination (NTE) and the propensity to enter teaching once certified. Their findings show differences by race and specialty. For most white certificants, the NTE score was not a good predictor of entry into teaching with the exception of those in fields likely to have a high demand outside education. In these fields, high scoring certificants were *less* likely to teach than lower scoring certificants. Among blacks, however, high scoring certificants were much more likely to enter teaching than their lower scoring counterparts. In addition, the probability of entry declined over time (1976–85) among whites; the opposite was true for blacks.

These studies focus on the point of entry into teaching. However, a large proportion of the demand for teachers in any given year is filled by continuing teachers. Studies have shown that the length of time teachers already in school stay in teaching differs greatly by age, gender, and subject specialty (Grissmer and Kirby, 1987, 1991; Murnane and Olsen, 1989, 1990; Murnane et al., 1988, 1989). A summary of the early research is provided in Grissmer and Kirby (1987); some of the more recent research is described in Grissmer and Kirby (1991), which also presents findings from Indiana.

Another important aspect that has received little attention until recently is that a significant number of teachers return to teaching after a career interruption. For example, 75 percent of new hires in Connecticut in 1986–87 were teachers with prior teaching experience. However, there is little systematic knowledge about this reserve pool and the propensity of individuals constituting it to reenter teaching. Evidence from Murnane and Olsen (1989), Murnane et al. (1988, 1989), and Grissmer and Kirby (1991) shows that elementary school teachers, women, and older teachers are the most likely to return and that most teachers intending to return do so within the first five years after separation. However, much remains to be done in this area.

Supply Models

The Panel on Statistics on Supply and Demand for Precollege Science and Mathematics Teachers examined the projection model used by the National Center for Education Statistics (NCES) and several state demand and supply models. Their conclusion was that current models were of limited usefulness, lacked behavioral content, and frequently were too aggregated. The two major components of supply in these models are (a) continuing teachers and (b) new entrants. Most models use an attrition rate (sometimes differentiated by age or experience or subject areas) which when applied to the teaching stock produces an estimate of the supply of continuing teachers. The most difficult part of modelling teacher supply is the second component—attempting to predict the willingness to teach of those who were not in the teaching labor force in the previous year. Virtually none of the state models nor the Center for Education Statistics model provides a thorough analysis of the contribution of these various types of potential entrants. Most models ignore everyone except new teacher graduates, newly certified persons, or some equivalent and generally predict shortages or surplus based on naive comparisons between the number of newly trained teachers and teacher demand.

The California PACE model (Cagampang et al., 1985) represents an ambitious effort to take into account all the disparate sources of supply of new teachers. The model examines four types of new entrants: new teacher graduates, new credential holders from out of state, teachers entering from the reserve pool, and those obtaining emergency credentials by passing the California Basic Educational Skills Test. However, lack of adequate data forces the model to use numbers based on historical hiring patterns in the state, rather than on supply relationships.

What makes the naive assumptions regarding new teacher supply in most of these models particularly questionable is that descriptive statistics in many states indicate that a substantial number of new hires do not consist of new teacher graduates but of entrants from other categories.

PURPOSE OF THE REPORT

Our purpose in this report is both more broad and more limited than that in the papers discussed above. Because our purpose is primarily descriptive, we make no effort to estimate behavioral relationships. Instead, this report is a first step in identifying the diverse sources of teacher supply, the magnitude of the flow from each source,

the characteristics of the teachers who enter or reenter from each source, and their jobs in the years before they enter teaching. These data are useful to policymakers and school systems in that they provide some idea of the diverse sources of teacher supply, the relative importance of different factors in determining who returns to the labor force, the need for new graduates to fill vacancies, and which steps might be undertaken to recruit teachers from other states, especially those who might accompany spouses to Indiana during a job move. These data, combined with those presented in two companion reports (described below), can help point the way for designing and implementing initiatives aimed at attracting and keeping quality teachers in teaching. For example, knowing that there is a reserve pool of individuals who could be attracted to teaching from other occupations suggests that a low cost certificate program combined with a scholarship and wide publicity might be potentially cost-effective. The fact that several teachers migrate to Indiana as part of a spouse's job move suggests that a good approach would be to start a program of cooperation with local businesses, whereby potential teachers might be given information about job openings in various neighboring districts.

The report draws from two unique sources of data describing Indiana teachers. The first is a computerized file containing a record for each Indiana teacher in each year from 1965 to 1988. The second is a survey of all Indiana teachers who taught in the school year 1987–88, but who did not teach in the Indiana public school system the previous year. These two data sources provide a comprehensive database for analyzing teacher supply that is unmatched by data currently available in other states.

IMPORTANCE OF STATE DATA

National efforts to understand and predict teacher supply and demand have been constrained by a number of factors, not the least of which is that the teacher labor market functions primarily at the state and local levels, necessitating data collection and analysis at these levels. For example, many teacher candidates apply for jobs exclusively within one state or area within a state, and state-level education policies (including certification requirements, salary scales, etc.) create different teacher labor market conditions within each state. Further, many (but certainly not all) state databases are richer and more reliable than those at the national level for making supply and demand projections. It thus rests primarily with individual

states to develop their own models of teacher supply and demand—models that provide detailed forecasts useful for formulating state policies for teacher recruitment, hiring, compensation, and retention and that increase the efficiency and quality of the state's educational system.

These state-level analyses can help improve national estimates in two ways. First, they can help develop prototypes of supply and demand models and highlight the level of complexity required to produce credible estimates. As such, they can reveal the pitfalls of relying on more simplistic models. Second, state models can identify the critical factors influencing changes in components of supply and demand, and also whether these are peculiar to states or are national trends. If the latter, then these can be incorporated into national-level analyses to produce improved national estimates of the components of teacher supply and demand. Where variables act at the state level, it may be possible to include them in a national model as regional- or state-based variables.

Given these advantages to state-level supply and demand modelling, we decided to use state data to develop a more comprehensive and valid model than is possible at the national level. Funding from Lilly Endowment, Inc., and Indiana's extensive educational database made Indiana a prime candidate for such efforts.

NEW HIRES IN INDIANA

Each year school districts in Indiana need to hire teachers to fill job vacancies. These job vacancies are created in three ways. Teachers who do not return to teaching from the previous year leave a vacancy to be filled. Additional vacancies can also be created if enrollments rise or if class sizes decrease. In the last five years, Indiana public schools have hired an average of 3,600 teachers annually; this represents approximately 7 percent of the Indiana teaching work force.

The number of teachers hired has decreased dramatically from the 1967–70 period when between 8,000–9,200 teachers were hired each year. This represented about 17 percent of the teacher work force. This decline in new hires occurred in response to falling enrollments and falling teacher attrition rates and reached its lowest level in 1982 when only 2,300 teachers were hired. The increase since 1982 from 2,300 to the average of 3,600 in the last five years is at least partly in response to increasing enrollments in elementary grades, combined with legislatively mandated smaller class sizes.

Improving the quality of Indiana public school teachers requires better and more detailed understanding of this group of annual hires: their characteristics, the multiple paths they follow into teaching, their alternative job choices, and how their initial teaching experiences affect their attitudes and propensity to continue in teaching. One important aspect of the initial teaching experience for first-year teachers is the newly implemented Indiana Beginning Teacher Internship Program, and we need to understand how this program affects teaching experience and future career plans.

THE CURRENT STUDY

The overall study attempts to assess the current state of teacher supply and demand in Indiana, to determine and recommend policies to ensure an adequate supply of certified teachers, and to provide the Indiana State Department of Education with the capability to monitor and perform future assessments of teacher supply and demand. Although the specific findings in this study are most relevant to educators and policymakers in Indiana, the methods and implications of our findings should be of more general and widespread interest.

Indiana's data related to teacher supply and demand include data on student enrollments, teacher salaries, the current teaching workforce, and historical data on teachers' participation in the Indiana public school teacher workforce. The data span a long period of time, from 1965–88, the longest of any state analyzed to date. In addition, these data were supplemented with a survey of newly hired teachers in Indiana public schools during the academic year 1988–89. Together, these provide a comprehensive and powerful base on which to build models of the individual components of teacher supply and demand and to test the validity of an integrative model.

This study and the companion reports analyze the data collected in the survey of entering Indiana teachers. This survey was administered to all Indiana teachers who taught in 1987–88 but who did not teach in the Indiana public school system in the previous year. It collected information concerning their previous labor force and educational activities, their first-year teaching experiences, their attitudes toward and participation in the mentor program, and their experiences in the teacher labor market regarding job search and job selection.

Specific questions that we address in this and companion studies are:

1. What are the sources of teacher supply and the paths into teaching taken by newly hired teachers? How have these paths changed over time?
2. How satisfied are teachers with their entering or reentering teaching experiences? What are the primary sources of dissatisfaction?
3. What are their short-term and long-term career plans? What factors are important in these decisions?
4. What are new teachers' experiences in and opinions of the Indiana Beginning Teacher Internship Program?

The first topic is the focus of this report. The fourth topic is described in Hudson, Grissmer, and Kirby (1991). The second and third topics will be the subject of future reports.

In addition to these reports presenting data from the survey of new hires, an additional report (Grissmer and Kirby, 1991) analyzes the attrition patterns of full-time teachers over the 24-year period, using the computerized database. A final report will present the results from an integrated model of teacher supply and demand that will address questions of possible teacher shortages.

ORGANIZATION OF THE REPORT

Section II describes historical sources of new teacher supply based on the longitudinal 24-year file. Section III presents a demographic and economic profile of teachers who responded to our survey and the paths through which they entered teaching. Conclusions are presented in Sec. IV. Appendix A discusses the development and implementation of the survey and the survey questionnaire is included in Appendix B.

II. THE CHANGING PROFILE OF NEWLY HIRED TEACHERS

To provide some background on traditional sources of new hires in Indiana and to set the context for the survey findings, we first present some historical data from the teacher personnel files supplied by the Indiana State Department of Education. These contain data on all regular contract employees of the Indiana public school system from 1965 to 1988. These records contain a variety of demographic data such as age, sex, and educational attainment, as well as teaching-related variables such as years of teaching experience, subjects taught, and grade level. The subsections below look at new hires[1] over time and examine how the relative proportions of inexperienced and experienced teachers have changed from 1967–68 to 1988–89. We also present evidence to show that the distribution of these new hires in terms of gender and age has changed markedly over this time period.

THE CHANGING MIX OF INEXPERIENCED, MIGRATING, AND RETURNING TEACHERS

Figure 2.1 shows that the number of new hires has fallen dramatically over time, from a high of over 9,000 in 1970 to a low of about 2,300 in 1982. If we assume that the teacher labor market has not been supply-constrained, then we can interpret these numbers as reflecting demand[2] for new teachers. The steady decline in demand over the 1970s mirrors the decline in enrollments that occurred over this time period as well as declining teacher attrition rates. Since 1982, however, as the legislature mandated smaller class sizes, we see that demand has risen slowly and now stands at a little over 3,000.

The data allowed us to categorize newly hired teachers as experienced and inexperienced (or new) teachers.[3] Further, because our

[1]New hires are defined as all teachers who were not teaching full-time in the Indiana public school system in the previous year.

[2]By demand, we mean the number of new teachers demanded in a given year (i.e., the number of vacancies that the school has to fill) as a function of the number of teachers leaving (turnover in the school), pupil-teacher ratios, and enrollment.

[3]Experience is given by a data field that includes teaching experience for which the teacher was given credit when hired. In most cases, we believe that this encompasses public school experience only. Thus, in this section, experience probably refers to experience in public schools either in Indiana or out of state.

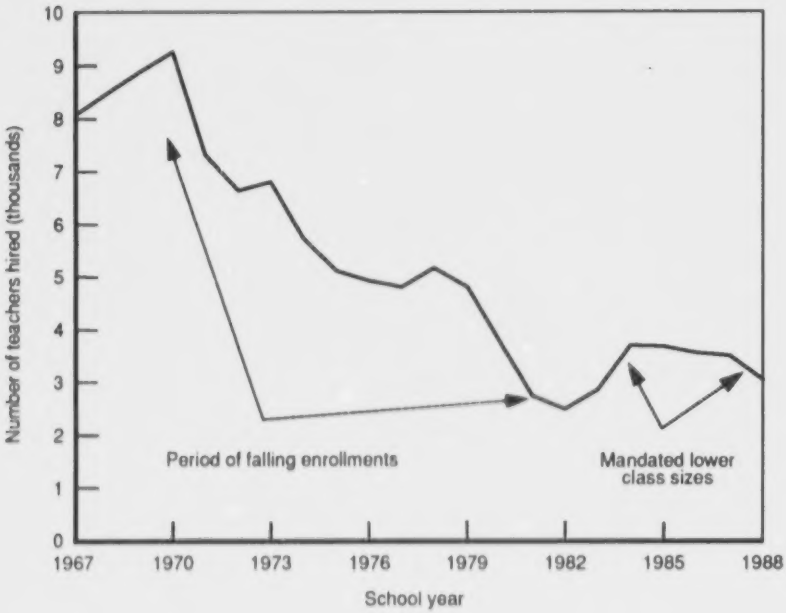

Fig. 2.1—Number of new hires, 1967–88

data are linked over time, we were able to distinguish whether teachers newly hired in any given year had taught before in the Indiana public school system. If they had, they were classified as "experienced, returning Indiana teachers." If they had not, they were classified as "experienced, migrating teachers"; these teachers could be immigrants from another state (from either public or private schools) or from private schools in Indiana.[4]

Figure 2.2 shows that the relative proportions of inexperienced and experienced new hires has changed over time. In the earlier period,

[4]The distinction between migrating and returning is less clearcut for earlier periods for which we have data. This is because some teachers may have taught in Indiana before 1965, the first year for which we have data. These teachers would be classified as migrating simply because we did not have earlier records indicating their Indiana service. This bias raises the estimates of migrating teachers and depresses estimates of returning teachers in the early period. Since almost all teachers who return to teaching do so within five years (see Grissmer and Kirby, 1991), this bias becomes negligible by about 1970–71.

far more inexperienced than experienced teachers were hired. Since then the situation has somewhat reversed. Over the 1980s, the number of inexperienced teachers hired has been around 1,000 to 1,500 and the number of experienced new hires has ranged from 1,500 to 2,200.

Figure 2.3 further breaks out the number of experienced new hires into those who are returning Indiana teachers and those who are transferring from elsewhere. Because of the problem of using this classification with earlier cohorts of new hires, the figure displays these data for 1971–88 only. We find that the relative magnitudes of these two types of teachers are approximately equal over time, between 1,000 to 1,500 (with the exception of the early 1980s when the number of migrating teachers hired dropped to around 500). Since then, this has increased and stands now at a little under 1,000.

Another way of looking at these data is presented in Fig 2.4, which summarizes the relative proportions of each type of hire over time.

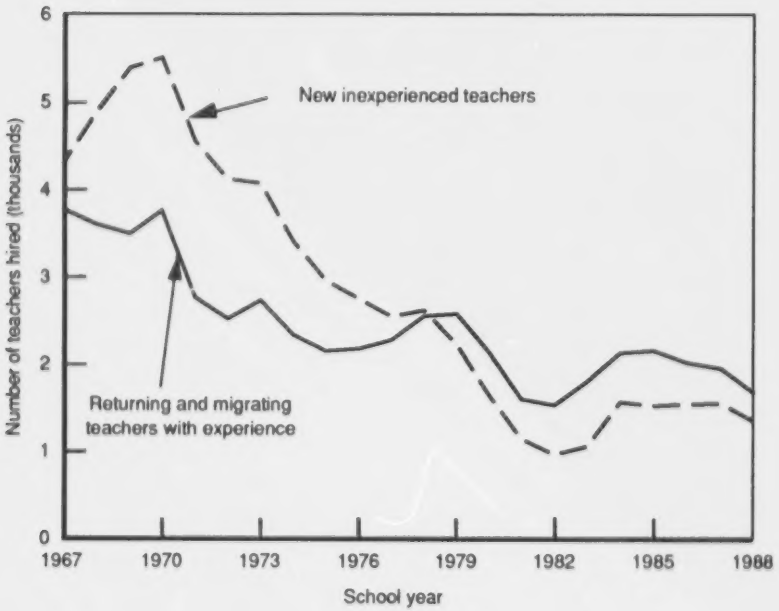

Fig. 2.2—Number of inexperienced compared with experienced new hires, 1967-88

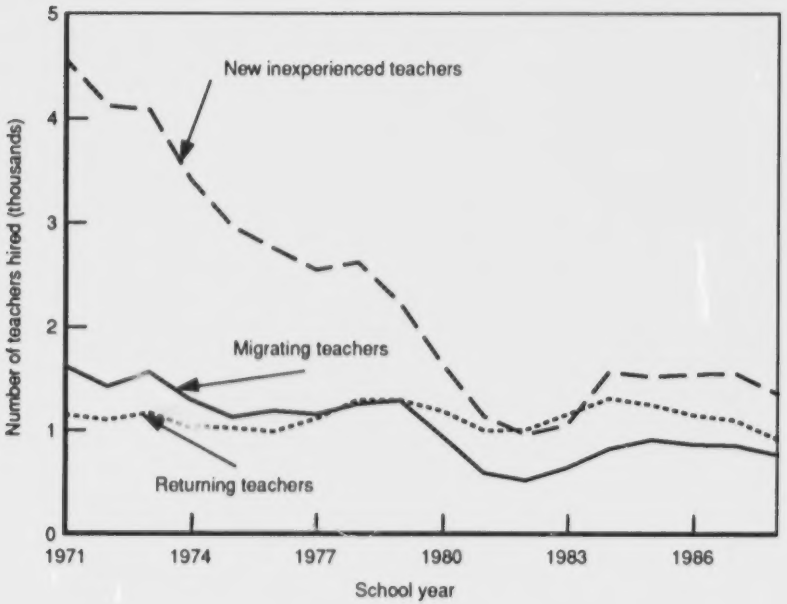

Fig. 2.3—Number of new, returning, and migrating teachers hired, 1971–88

The bars depicting total demand in each year add to 1 and the different shaded areas depict the relative proportions of inexperienced (new), returning Indiana, and migrating teachers. The graph shows the rather dramatic increase in the proportion of returning teachers hired relative to new teachers. For example, in 1971, new, inexperienced teachers accounted for over 60 percent of all new hires, returning teachers for 15 percent. By 1988, these proportions were 40 percent and 30 percent, respectively. The proportion of new hires accounted for by migrating teachers has remained relatively constant, a little over 20 percent, although it is a little higher in 1988, about 25 percent.

These data show that when demand declines,[5] the number of returning teachers hired is the least affected; the greatest effect

[5]Again this assumes that the teacher labor market is not supply-constrained. As such, declines in the total number of new hires can be interpreted as declines in demand.

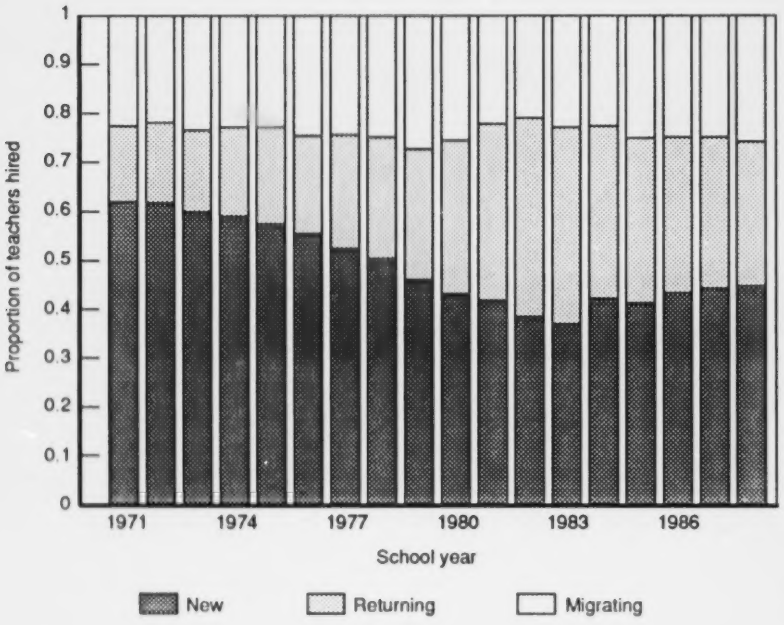

Fig. 2.4—Relative proportions of new, returning, and migrating teachers hired each year, 1971–88

appears to be on the number of inexperienced new hires. This in turn presumably affects the decisions of individuals in college to enter teaching and may cause a decline in future new teacher supply.

THE CHANGING DISTRIBUTION OF NEW HIRES BY GENDER

The proportion of men among new hires has declined markedly over time from about 30 percent in the late 1960s and middle 1970s to about 22 percent in 1988, a decrease of almost 27 percent. This is shown in Fig. 2.5. A breakdown by gender shows that men are a declining proportion of returning, migrating, and new teachers (Fig. 2.6). The decline appears to be the largest among migrating teachers. The increasing proportion of women overall among new hires may be partially explained by the fact that returning teachers are a higher

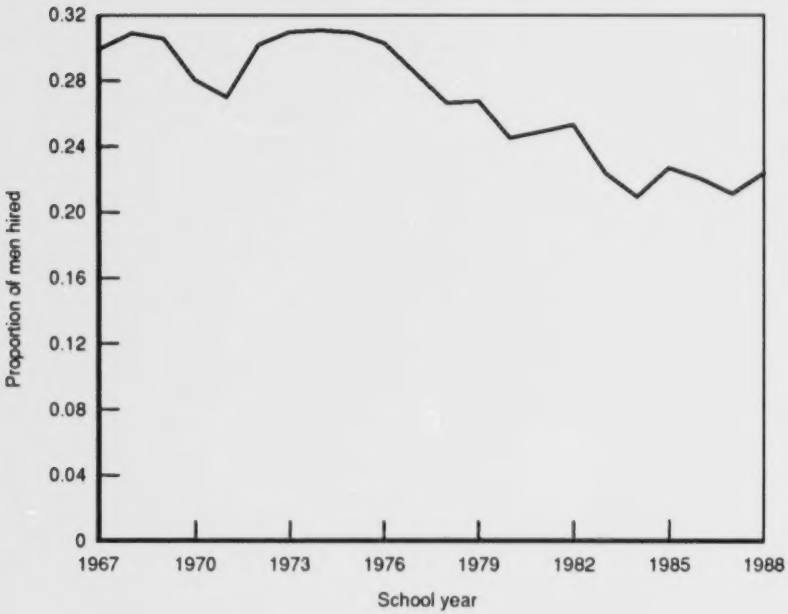

Fig. 2.5—Men as a proportion of new hires, 1967–88

proportion of new hires in the later years. Returning teachers have the highest proportion of women, generally around 80 percent, although in recent years, this proportion has shown some slight decline.

THE CHANGING DISTRIBUTION OF NEW HIRES BY AGE

The age distribution of new hires has also changed markedly. Figure 2.7 shows the changing profile of new hires over time: New hires have become increasingly older. Indeed, from 1983 onward, we find that well over a third of new hires are 35 years of age or older; before, this group accounted for a little over 15 percent of new hires. Conversely, we find a sharp decline in the proportion of new hires that are younger than 24 years—the group that presumably is primarily composed of newly graduated teachers. For example, young teachers

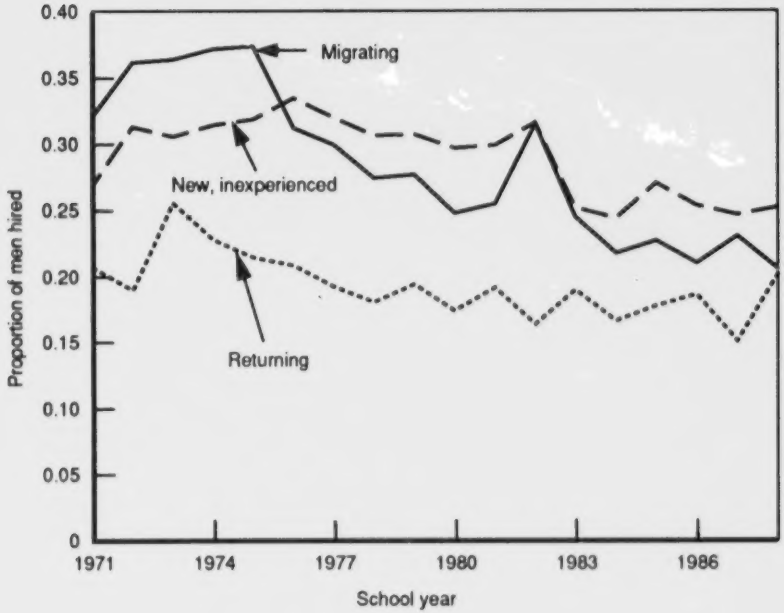

Fig. 2.6—Men as a proportion of new, returning, and migrating teachers, 1971–88

initially constituted 30 percent of new hires; however, during 1983–86, they accounted for under 10 percent of all new hires. The proportion has risen somewhat to a little under 15 percent during 1987–88. The group in the middle, those aged 25–29 years, has stabilized at about 25 percent of all hires, although between the late 1970s and early 1980s the proportion hired in this age group sharply increased.

At first glance, it seems likely that we can attribute this gradual aging to the changing distribution of inexperienced and experienced teachers among new hires that we had seen earlier. However, as Fig. 2.8 makes clear, this is not entirely the case. Figure 2.8 presents the distribution by age of new, inexperienced teachers over time. It is clear that *inexperienced* teachers entering teaching for the first time have themselves tended to be older.

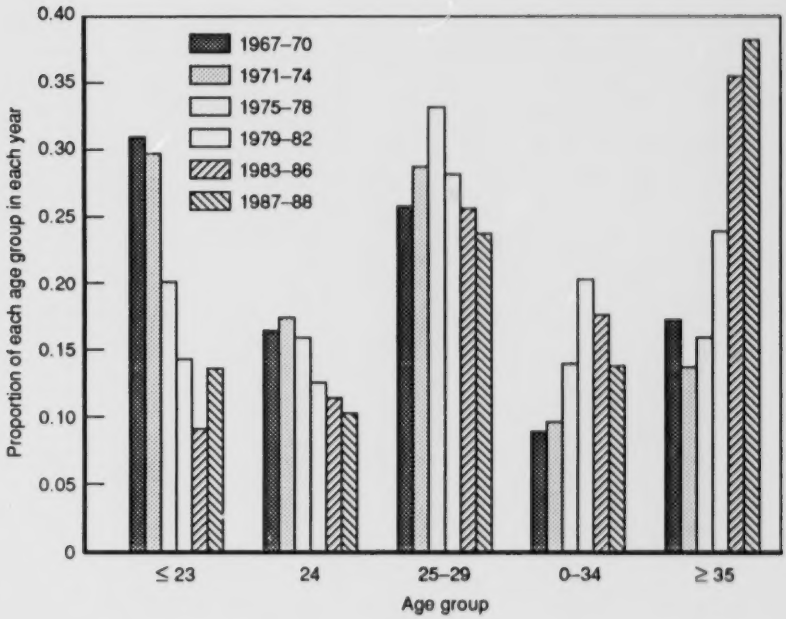

Fig. 2.7—Age distribution of all new hires, 1967–88

For example, the proportion under 24 years pf age has declined markedly from a high of over 50 percent during 1967–70 to a low of a little over 20 percent in the 1983–88 cohorts. The relative increase here has been among those 25–29 years of age and to a smaller degree, among those 30 and older. The middle group, for example, now accounts for almost 35 percent of all new, inexperienced hires compared to about 15 percent in the late 1960s. Similarly, we find that the 30 and over group represents about 25 percent of new, inexperienced teachers during 1987–88. The phenomenon is a little surprising—either newly graduated teachers are choosing to remain in school for further education or greater proportions of them are trying other occupations before entering teaching or both.

Among returning teachers, we find the same pattern repeated as shown in Fig. 2.9. Although returning teachers tended to be predominantly younger than 35 in earlier cohorts of new hires, we find that

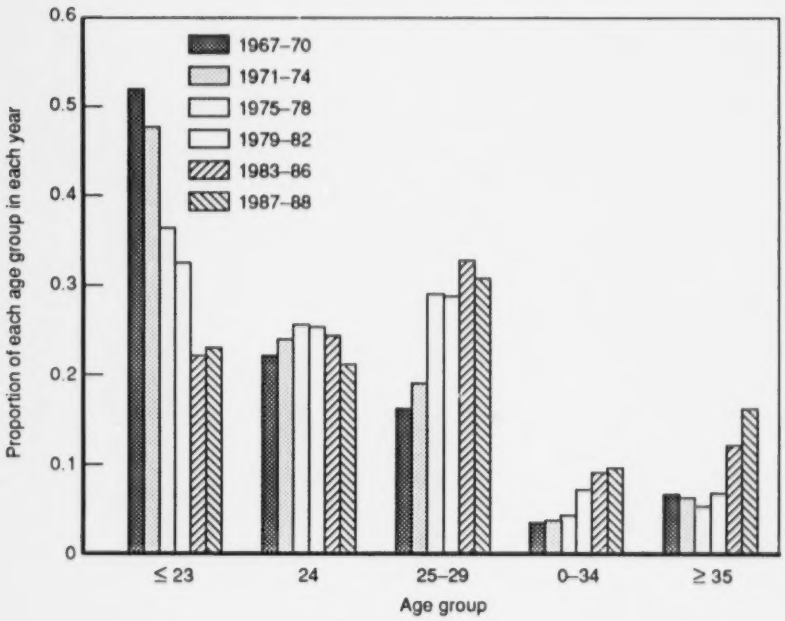

Fig. 2.8—Age distribution of new, inexperienced teachers hired, 1967–88

by 1983 and onward, older teachers, those 35 years of age and older, now represent between 65–70 percent of returning teachers hired.

The same is true, although to a less marked degree, of migrating teachers (Fig. 2.10). Here we find that teachers 35 years old and older constitute between 40–45 percent of all such teachers hired from 1983 onward, with a concomitant decline in the proportion of 25–29 year-olds, who formerly constituted the bulk of this group.

SUMMARY

The discussion above regarding the historical trends in characteristics of new hires has focused on three important points. These are (a) the increasing proportion of new hires over time who are experienced teachers, (b) the decreasing proportion of men among new hires, and (c) the aging of the newly hired cohorts over time.

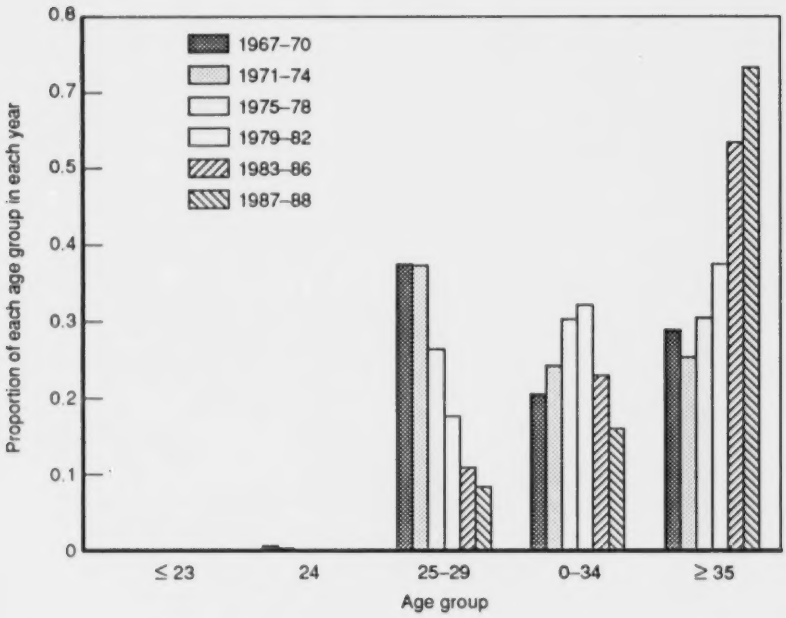

Fig. 2.9—Age distribution of returning teachers hired, 1967–88

One explanation for the first trend is that experienced teachers form a supply-constrained pool preferred by school districts or protected in rehiring by union rules or simply with better job-search and interviewing skills. If this is true, then experienced teachers are likely to obtain jobs more readily than inexperienced teachers who may be hired only when experienced teachers are not available. Thus, when demand is high, more inexperienced teachers are hired because the supply of experienced teachers is exhausted. At lower demand levels, fewer inexperienced teachers are needed because more of the demand can be met by experienced teachers.

An alternative explanation is that the shift from inexperienced to experienced teachers simply reflects supply constraints on both types of teachers. More inexperienced teachers were available when demand was high, and this pool declined as demand declined. The supply of experienced teachers may not have declined as much as the

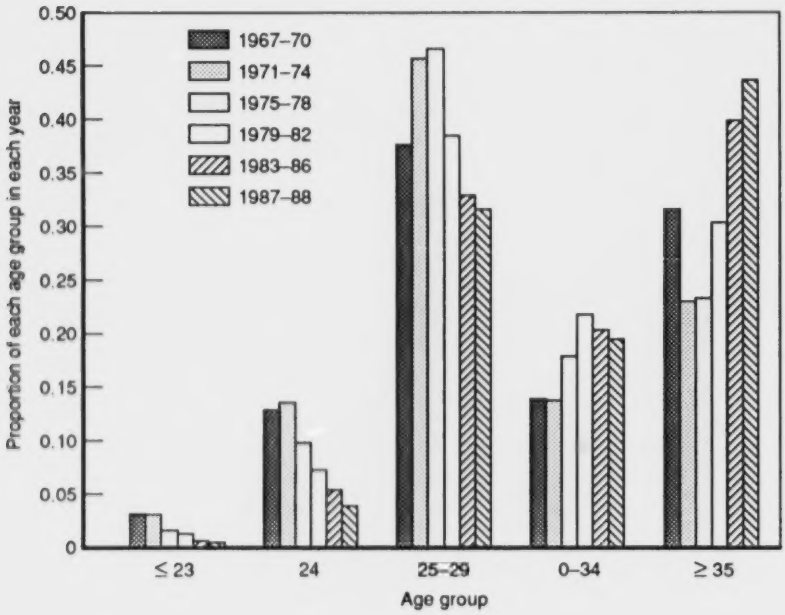

Fig. 2.10—Age distribution of migrating teachers, 1967–88

supply of new teacher graduates, either because there was a large reserve pool created by the large number of teachers who left teaching in the late 1960s and early 1970s or because the supply of such teachers is less responsive to changes in demand, compensation, and working conditions. In any case, what is evident here is that the reserve pool of experienced former teachers has played an increasingly important role in filling teacher demand and any projections that do not take this into account are likely to erroneously predict teacher shortages.

We have shown that men form a decreasing proportion of all three teacher supply groups. A possible explanation of the decreasing proportion of men among migrating teachers is that they migrate voluntarily to achieve higher salary, whereas women teachers have more often migrated involuntarily in response to a spouse's job change. More men would have migrated earlier in the period in response to

high demand. In later periods, migration was probably constrained by tight demand conditions.

Returning teachers have the highest proportion of women, generally around 80 percent, although in recent years, this proportion has shown some slight decline. This occurs because women more often than men leave for reasons related to family and child care and later return to teaching. In our earlier analysis of attrition (Grissmer and Kirby, 1991), we showed that although men tend to have lower attrition rates than women, once they leave, they are unlikely to return.

The aging of the migrating and returning pool of teachers probably reflects the aging of the teaching force itself. Since the number of new hires has sharply decreased in the last 15 years, the average age of the teaching force has increased, and is currently at 41 years. As the teaching force itself gets older, so do the populations of migrating and returning teachers; however, this does not explain why inexperienced teachers themselves appear to be entering teaching at an older age.

All of these trends are at least partly the result of the changing role of women in the labor force over time. For example, older women who tended in earlier years to return part-time or not at all are now returning to professions full-time, and more women in general are choosing to work, partly because of society's changing mores and partly because of economic reasons. As we have shown in our report on teacher attrition (Grissmer and Kirby, 1991), men's real incomes have fallen over this time period and women's labor-force participation increased dramatically from 43 to over 70 percent by 1987.

It is interesting to decompose the trends regarding the gender and age composition of the newly hired cohorts to determine the cause of the change. Can it be attributed to the fact that (a) the distribution by age and gender *within* each pool of new hires has been changing over time or that (b) the proportions of new hires from each *source* have also been changing over time? If we examine the proportion of men from 1967–87, we find a decrease of almost 27 percent. If we assume that the proportion of new hires from each source remained the same as in 1967–70, we find that because of the changing distribution *within* each source, the proportion of men in the newly hired cohorts by 1983–87 would have still declined by a little over 21 percent. In other words, most of the decline can be attributed to the changing mix of men and women within each group of newly hired teachers. Similarly, if we examine the age distribution across time under various assumptions, we find that the largest change again results from the dramatic change over time in the age composition of

new hires within each group. For example, there was a 57 percent decline over time in the proportion of new hires aged 20–24 years. Had the proportion of new hires remained the same as in 1967–70, the decline would still have been quite large—40 percent. Had the age composition of each pool remained the same as in 1967–70, even with the changing proportion recruited from each group, the decline would have been much smaller—a little over 25 percent. Similar results are obtained when we examine those aged 35 years and older. Thus, the changes in the composition of newly hired cohorts by age and gender are mainly attributable to the fact that the age and sex distribution of each source of supply has been changing over time as older teachers return to the labor force and more women enter the labor force at a later age, although certainly the fact that more experienced teachers are being hired has contributed to these trends.

III. PROFILE OF TEACHERS IN THE SURVEY SAMPLE

For the recent cohort (1988–89), the data we obtained from the survey of new hires allow us to develop more disaggregate groupings of new hires than the computerized teacher files (see Appendixes A and B for details). Whereas the teacher files only allow classification into new, returning, and migrating teachers, the survey allows us to answer questions such as:

- Where do migrating teachers come from?
- How many migrating teachers went to school in Indiana or had previous teaching experience?
- How long ago did returning teachers teach, and what was their main activity during their break from teaching?
- How many inexperienced teachers graduated from Indiana colleges, and how soon after college do they enter teaching?
- How many inexperienced teachers try other occupations before entering teaching?
- How many newly hired teachers come from private schools?

Survey respondents were classified into one of five categories depending on their answers to questions in the survey regarding prior teaching experience and the state where the teacher had most recently taught. These categories are:

- No prior experience in either public or private schools;
- Prior experience most recently in:
  - Indiana public schools,
  - Indiana private schools,
  - Out-of-state public schools,
  - Out-of-state private schools.

The survey was administered to all Indiana public school teachers newly hired in the school year 1988–89. Our initial population consisted of 3,066 teachers in grades K-12. The survey questionnaire focused on five separate topics: (1) current assignment, (2) future plans, (3) work history, (4) teacher labor market experience, and (5) personal background. The survey was fielded in May-June 1989. A total of 1,953 people completed the survey, giving us an unadjusted response rate of 64 percent. However, initial analyses revealed that

288 of the respondents were ineligible either because they were not full-time teachers or because they had taught in Indiana the previous year. Another five surveys were rejected because less than half of the survey had been completed. This gave us a total of 1,660 usable, eligible surveys (see Appendix A for details on survey development, implementation, and nonresponse).

Of these 1,660 teachers, fewer than half (46 percent) are first-year teachers who have never taught before (Table 3.1). A little more than a quarter are returning Indiana public school teachers, and 16 percent are migrating teachers from out-of-state public schools. About 10 percent are transfers from private schools, the majority of whom are from in-state schools. These reflect the relative proportions reported in Sec. II, when we had looked at the historical profiles of newly hired teachers in 1987–88. We had seen then that new, inexperienced teachers constituted about 45 percent of the total number of hires, and returning teachers and migrating teachers accounted for about 30 and 25 percent, respectively.

Table 3.1

TEACHER TYPOLOGY

Teacher Type	Definition	No.	Percent of Total
New	No prior teaching experience	763	46.0
Returning	Most recent teaching experience in Indiana public schools	461	27.8
Migrating	Most recent reaching experience in out-of-state public schools	258	15.5
Transfers from Indiana private schools	Most recent teaching experience in Indiana private schools	131	7.9
Transfers from out-of-state private schools	Most recent teaching experience in out-of-state private schools	47	2.8
Total		1,660	100.0

DEMOGRAPHIC PROFILE OF THE 1988–89 COHORT OF NEW HIRES

This subsection presents some background data on the newly hired 1988–89 cohort, partly because it is interesting to see how typical or atypical this cohort is with respect to the earlier cohorts, and partly to provide a better understanding of who these new teachers are, where they are coming from, what motivates them, and what their economic status is. Part of the motivation for this section is purely descriptive—we wish to provide a fuller, richer picture than would emerge from merely studying historical trends. However, information such as that presented here is also important in understanding the future career plans of teachers, reasons for entering or staying, the alternative occupations they may be attracted to or recruited from, etc. The subsection that examines the paths into teaching is an important addition to the literature on modelling teacher demand and supply—this is, we believe, the first time that these different paths into teaching have been detailed to this extent and it shows clearly that even modelling inexperienced teacher supply is not merely a question of counting new teacher graduates. In this sense, this report sets the context for a number of companion reports that focus on particular aspects of teacher demand and supply.

Table 3.2 presents a demographic profile of teachers by teacher type. Three-quarters of the inexperienced teachers are women as compared with over four-fifths of all other types of teachers. Again, we saw that the proportion of men in every category of teacher has been declining over time and this reflects what we had seen earlier in Sec. II. The proportion of blacks in each group of teachers varies, from a low of 2 percent among new teachers to a high of 5 percent among those transferring from Indiana private schools. This compares with 6.9 percent among all teachers nationwide in 1986 and 5.5 percent among all teachers in Indiana.

The age distribution is quite different among the subgroups. New teachers tend to be the youngest; over two-fifths are under 25 years of age and almost three-quarters are under 30. Returning teachers are the oldest among all the teachers; about 40 percent are over 40 and 70 percent are over 35. Teachers transferring from Indiana private schools seem similar to Indiana returning teachers; about 65 percent are 35 or older. The teachers transferring from out of state are a little younger; 45 percent of them are under 35.

The pattern of educational attainment differs markedly, not unexpectedly, when one compares new to experienced teachers. Although only about 6 percent of new teachers have master's degrees, between

Table 3.2

PERCENTAGE DISTRIBUTION OF RESPONDENTS' DEMOGRAPHIC CHARACTERISTICS, BY TEACHER TYPE

Selected Measure	Teacher Type					
	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Sex						
Female	76.4	82.2	79.6	82.3	82.6	79.1
Race						
Black	1.9	3.5	4.7	5.4	2.2	3.0
Age in years						
20–24	41.4	2.2	0.0	1.5	2.2	19.6
25–29	30.7	12.6	25.5	27.7	17.4	24.2
30–34	8.9	15.7	20.4	16.9	15.2	13.3
35–39	9.3	30.4	22.4	22.3	34.8	18.9
40–44	7.0	21.5	20.0	10.8	19.6	13.8
45–49	1.6	12.2	7.5	13.1	8.7	6.5
50–54	0.7	3.7	3.1	5.4	2.2	2.4
55+	0.7	1.7	1.2	2.3	0.0	1.3
Mean age	28.4	38.0	36.0	35.9	36.3	33.1
Education						
Graduated from high school in Indiana	82.3	83.7	41.5	78.6	59.6	75.2
Graduated from college in Indiana	87.7	87.8	40.7	83.2	48.9	78.9
Highest attained degree						
Associate	0.3	0.0	0.0	0.0	0.0	0.2
Bachelor's	93.3	33.6	53.1	54.3	65.2	66.0
Master's	6.2	63.8	44.1	44.1	32.6	32.2
Specialist	0.1	2.4	2.0	1.6	2.2	1.3
Ed.D	0.0	0.0	0.4	0.0	0.0	0.1
Ph.D.	0.1	0.2	0.4	0.0	0.0	0.2
Marital status						
Married, spouse employed full-time	45.9	72.6	64.4	59.7	60.9	57.7
Married, spouse employed part-time	5.0	4.4	7.1	7.7	6.5	5.6
Married, spouse not employed	3.0	2.9	5.5	3.9	6.5	3.6
Not married	46.1	21.2	22.1	28.7	26.1	33.2
Dependents						
Children under 5 years	13.9	42.4	39.4	37.9	31.4	27.1
Children over 5 years	24.6	73.2	60.4	60.7	58.5	47.4
No.	763	461	131	258	47	1,660

a third and three-fifths of experienced teachers do. Returning Indiana teachers appear, on average, to have the most educational attainment.

Differences between new and experienced teachers with regard to marital status and the presence of dependents are a function largely of age. Slightly fewer than half of new teachers are not married, compared with between 20–30 percent of other types of teachers. Among those who are married, most have spouses who are working full-time. With the exception of new teachers, between a third to four-fifths of teachers have children under five years, whereas between 60–73 percent have children older than five years. The proportions for new teachers are much smaller, 14 and 25 percent, respectively.

It is useful to look at the previous teaching experience of our sample, shown in Table 3.3. This fills out the picture of how soon, for example, teachers are likely to return to teaching. Most of the teachers, with the exception of inexperienced teachers who are omitted from the table for obvious reasons, have between 1–5 years of teaching experience, although between 15–25 percent have between 6–10 years of experience. The mean years of teaching experience are surprisingly similar across all four groups, between 6.5 and 7.4 years, with the highest being among those previously teaching in Indiana private schools.

The types of schools at which these teachers previously taught may provide some indication of the extent to which, for example, teachers might be recruited from private schools. Not surprisingly, Indiana returning teachers have spent the greater part of their teaching careers with Indiana public schools—almost six years—but a small proportion have taught both in private schools and out of state although the length of service in both seems to have been rather short. Among migrating teachers, somewhat over a third have taught previously in Indiana public schools (although their most recent experiences have been in out-of-state public schools) on average for about a year. Most have about five years of teaching experience in out-of-state public schools, although like the returnees, a small proportion of them have taught in private schools.

Turning now to teachers transferring from private schools, we find that between 36–46 percent of them have taught before in Indiana public schools, with smaller proportions having taught in out-of-state public schools as well. The average teaching experience seems to be five years for those teaching previously in Indiana private schools and four years for those in out-of-state private schools. The patterns shown in Tables 3.2 and 3.3 reveal a greatly mixed and fluid picture of the teacher labor market: Teachers seem to move from private to

Table 3.3

PERCENTAGE DISTRIBUTION OF RESPONDENTS' TEACHING EXPERIENCE, BY TEACHER TYPE

Experience[a]	Teacher Type				
	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Length of experience					
1–5 years	52.5	53.9	48.1	55.3	52.4
6–10 years	29.9	25.2	29.0	14.9	27.7
11–15 years	11.5	13.6	12.2	25.5	12.9
16–20 years	4.3	4.3	5.3	4.3	4.5
20+ years	1.8	3.1	5.3	0.0	2.5
Mean years	6.5	6.9	7.4	6.9	6.8
Median years	5	5	6	5	5
No.	461	131	258	47	897
Place of experience					
Indiana public schools	100.0	35.3	45.8	36.2	69.6
Mean years	5.7	1.3	2.2	1.3	3.7
Indiana parochial schools	7.4	2.3	100.0	14.9	19.2
Mean years	0.3	0.1	4.3	0.4	0.8
Out-of-state public schools	11.3	100.0	13.7	25.5	37.1
Mean years	0.4	5.1	0.6	1.2	1.8
Out-of-state parochial schools	2.4	8.1	9.9	100.0	10.0
Mean years	0.0	0.3	0.3	4.0	0.4

[a]Because new teachers have no prior teaching experience, they are omitted from this table.

public schools and vice versa and from one state to another with much greater frequency than one would have expected.

To determine if some teachers we had classified as migrating had "roots" in Indiana, we asked teachers whether they had graduated from a high school or a college in Indiana. Well over four-fifths of Indiana teachers (those returning as well as those from private schools) had done so as had the overwhelming majority of new teachers. However, a surprisingly large number of those transferring from out of state had attended schools in Indiana; between a half to four-fifths had graduated from colleges in Indiana. This suggests that some migrating teachers are essentially returning home after a period in another state and that examining the proportion of newly

certified teachers who enter teaching in Indiana is likely to underestimate the number who actually do teach as well as those who are likely to teach in *Indiana* subsequently.

ECONOMIC STATUS OF TEACHERS

The economic status of teachers plays an important role in decisions to remain in teaching. The extent and need for moonlighting either during the school year or during the summer is a useful indicator of how constrained teachers feel in terms of financial resources and may have a bearing on whether they stay or leave.

The contract salary for teachers varies both by degree attained and by years of experience. As such, it is not surprising to find that the largest difference in mean annual contract salary is between new and experienced teachers, a difference of almost $4,000 (Table 3.4). The mean salary for returning Indiana teachers is marginally higher reflecting their somewhat higher educational attainment and perhaps greater years of teaching experience for which they receive credit within the Indiana school system. The median salary for new teachers is $19,000 compared with $22,000 for most other groups, a difference of 16 percent. Between a third and one-half (in the case of first-year teachers) report receiving some form of supplemental salary for extra duties performed during the school year (for example, serving as coach or band instructor). The mean amount of such earnings is between $1,200 and $1,700 and the median amount for all types of teachers is $1,000. Given the median salaries, this adds between 4.5 to 5.3 percent to annual teacher earnings.

Teachers can supplement their contract salaries either by moonlighting, through additional duties within education (coaching, club monitors, etc.), or through summer jobs. These jobs can significantly supplement teacher salaries and their availability may play a role in determining whether teachers continue teaching or pursue other full-time opportunities.

Teachers were asked about employment *during the school year* as opposed to summer employment. Surprisingly, about 40 percent of first-year teachers claimed to hold jobs either part-time or full-time outside the school during the school year (although only 88 actually answered when asked about the amount of their earnings), as did between 12 and 30 percent of experienced teachers.[1] The mean earn-

[1]It is possible that respondents misread the question. These proportions seem much higher than one would have expected.

Table 3.4

PERCENTAGE DISTRIBUTION OF TEACHERS, BY TEACHING SALARY AND OUTSIDE INCOME

Selected Measure	Teacher Type					
	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Contract salary						
Under $20,000	92.6	34.8	35.9	41.5	44.7	45.0
$20,000–$25,000	7.0	43.5	41.0	36.9	29.8	39.9
$25,000–$30,000	0.4	15.7	15.5	15.4	21.3	10.0
$30,000–$35,000	0.0	3.3	6.4	6.2	4.3	3.7
$35,000–$40,000	0.0	2.7	1.2	0.0	0.0	1.4
Mean	$18,779	$22,960	$22,877	$22,569	$22,511	$20,971
Median	$19,000	$22,000	$22,000	$22,000	$21,000	$20,000
No.	755	451	251	130	41	1,628
Supplemental salary						
Percent with supplemental salary	50.7	33.6	31.4	35.6	33.3	41.5
$1–$500	29.9	37.6	32.9	21.4	46.7	31.7
$500–$1,000	23.2	13.5	22.9	21.4	6.7	20.6
$1,000–$1,500	12.6	11.3	4.3	16.7	20.0	11.8
$1,500–$2,000	14.5	13.5	17.1	16.7	0.0	14.4
$2,000–$2,500	6.4	5.3	5.7	4.8	13.3	6.2
$2,500–$3,000	6.2	7.5	7.1	2.4	13.3	6.5
$3,000+	7.3	11.3	10.0	16.7	0.0	8.9

Table 3.4—continued

Selected Measure	Teacher Type					
	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Mean	$1,363	$1,446	$1,515	$1,678	$1,198	$1,415
Median	$1,000	$1,000	$1,000	$1,100	$1,000	$1,000
No.	358	133	70	42	15	618
Income from other employment during school year						
Percent holding jobs outside school during school year	39.5	29.6	15.3	11.7	4.0	13.5
Mean	$3,148	$5,656	$2,568	$3,240	$4,222	$3,825
Median	$2,000	$3,500	$2,000	$2,000	$4,000	$2,000
No.	88	64	37	25	9	223
Expected income from summer employment						
Percent expecting to hold a summer job	38.4	22.0	26.7	26.9	34.0	33.5
Mean	$1,776	$2,299	$2,141	$1,836	$2,106	$1,941
Median	$1,500	$1,800	$2,000	$1,800	$2,000	$1,600
No.	290	99	67	35	16	507
Spouse's income						
Percent with employed spouse	50.9	76.9	72.4	67.4	67.4	63.2

Table 3.4—continued

Selected Measure	Teacher Type					
	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Mean[a]	$28,073	$33,320	$37,218	$33,535	$33,444	$32,049
Median[a]	$25,000	$31,000	$33,000	$30,000	$30,000	$30,000
No.	325	306	147	71	27	876
Total family income						
Under $20,000	29.7	5.7	7.4	6.5	11.4	17.4
$20,000–$30,000	24.6	13.2	20.8	26.8	18.2	20.9
$30,000–$40,000	15.7	16.3	14.7	16.3	15.9	15.8
$40,000–$50,000	16.2	19.9	16.5	16.3	15.9	17.3
$50,000–$60,000	8.5	20.6	16.5	16.3	11.4	13.7
$60,000–$70,000	3.0	13.2	10.8	11.4	13.6	8.0
$70,000–$80,000	1.0	7.8	6.9	4.9	9.1	4.3
$80,000–$90,000	0.1	1.9	1.7	0.8	2.3	1.0
$90,000+	1.1	1.4	4.8	0.8	2.3	1.17
Mean	$33,254	$48,384	$47,336	$43,342	$46,386	$40,679
Median	$27,000	$48,000	$45,500	$42,000	$45,500	$39,000
No.	727	423	231	123	44	1,548

[a]For spouses employed full-time.

ings for such employment varies a good deal, ranging from $2,600 for migrating teachers to a high of $5,700 for returning Indiana teachers.

About a third of all teachers expect to hold summer jobs, although the proportions are a little smaller for experienced teachers. Expected income on the average is between $1,500 and $2,000 and this adds between 8 to 9 percent to median teacher salaries.

Between two-thirds to three-quarters of all teachers have spouses who are employed part- or full-time, although the proportion is much smaller for new teachers. The median income for spouses employed full-time is about $30,000 for spouses of experienced teachers and $25,000 for spouses of inexperienced teachers.

Total family income varies depending on whether the teacher is married or not and whether the spouse is employed part- or full-time. Among new, inexperienced teachers, almost 30 percent have total family incomes under $20,000; the proportion of experienced teachers earning at that level is considerably smaller. Conversely, less than 10 percent of new teachers have family incomes over $50,000; the corresponding proportion among experience teachers is about 40 percent. Reflecting this, the median family income for the former group is $27,000 and that of experienced teachers is between $42,000–$48,000, a difference on average of 66 percent.

ALTERNATIVE OCCUPATIONS FOR TEACHERS

One important question regarding teacher supply is the alternative choices available to teachers (Table 3.5). We find that between 40 and 50 percent of our respondents had been employed full-time in a non-teaching occupation at some time previously. This is a little surprising particularly among the new, inexperienced teachers. When asked about their main activity the previous year, we find that responses differ depending on the type of teacher. Well over half of the inexperienced teachers were in school; teachers transferring from out of state or from private schools, of course, tended to be employed full-time. About a fifth of the returning teachers were homemaking in the prior year and another third were working full-time. About 30 percent were working part-time.

Knowing the occupations to which teachers are drawn and from which they may be attracted back into teaching helps us shed some light on who constitutes the reserve pool. Of those employed full-time, among the inexperienced teachers we find that about a third were working in teaching either as substitutes or as part-time teachers. A little under 20 percent were working in administrative support

Table 3.5

PERCENTAGE DISTRIBUTION OF RESPONDENTS' PREVIOUS WORK EXPERIENCE, BY TEACHER TYPE

Work Characteristic	Teacher Type					
	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Ever employed full-time as nonteacher	40.6	50.3	43.6	42.0	51.1	44.2
Main activity in 1987–88						
Employed full-time	18.0	37.5	65.0	70.8	62.2	36.1
Employed part-time	19.7	30.5	20.9	16.2	22.2	22.7
Military service	0.1	0.0	0.0	0.0	0.0	0.1
Homemaker	2.9	20.7	9.1	6.9	2.2	9.1
Student	57.6	5.7	4.7	3.1	8.9	29.3
Unemployed	0.4	1.7	0.0	2.3	0.0	0.9
Other	1.2	3.9	0.4	0.8	4.4	1.2
No.	755	459	254	130	45	1,643
Occupation for those employed full-time in 1987–88[a]						
Teaching						
Substitute teacher	11.6	26.9	2.5	1.2	4.4	10.7
Teacher's aide	20.5	10.5	6.9	1.2	4.4	9.8
Classroom teacher	5.4[b]	0.0	69.2	75.0	65.2	37.9
Other	0.9	3.0	6.9	3.6	0.0	3.7
Nonteaching						
Managerial/administrative	6.3	11.2	3.8	3.6	4.4	6.3
Professional specialty	3.6	6.0	1.9	0.0	0.0	2.9
Postsecondary teaching	2.7	6.7	1.9	1.2	8.7	3.5
Social service specialty	3.6	5.2	0.6	1.2	0.0	2.5
Technical support	4.5	0.0	1.3	0.0	0.0	1.4
Sales	4.5	11.2	1.9	1.2	4.4	4.9
Administrative support	8.9	6.7	0.6	1.2	8.7	4.5
Service	8.0	1.5	1.3	4.8	0.0	3.3
Farming	0.9	0.8	0.0	1.2	0.0	0.6
Other	18.8	10.5	1.3	4.8	0.0	8.0
No.	112	134	159	84	23	512
Years in this occupation						
< 1	19.6	19.4	7.6	8.3	13.0	13.8
1	27.7	18.7	26.4	21.4	43.5	24.6
2	13.4	17.9	23.9	16.7	17.4	18.6
3	12.5	16.4	14.5	10.7	13.0	13.9
4	5.4	9.0	5.0	9.5	8.7	7.0
5	6.3	4.5	3.8	6.0	0.0	4.7
5+	15.2	14.2	18.9	27.4	4.4	17.6
Median	2	2	2	3	1	2
Annual salary						
Under $10,000	33.0	21.3	9.2	3.6	4.8	16.4
$10,000–$20,000	47.7	35.4	28.1	79.8	61.9	44.5
$20,000–$30,000	11.9	25.2	52.9	14.3	23.8	29.0
$30,000–$40,000	3.7	11.8	9.2	2.4	9.5	7.5
$40,000–$50,000	0.9	4.7	0.7	0.0	0.0	1.6
$50,000+	2.8	1.6	0.0	0.0	0.0	1.0
Mean (1988 $)	15,367	18,913	20,889	15,655	17,905	18,146
Median (1988 $)	13,000	18,000	21,000	15,000	16,000	18,000

[a]All subsequent data in the table are for those employed full-time in 1987–88.

[b]This is an anomaly—new teachers are classified as new precisely because they report having no teaching experience.

positions or service occupations, and another 6 percent in managerial/administrative positions.[2] Among returning Indiana teachers, about 40 percent were working in education, mainly as substitutes or aides. About 11 percent were in managerial/administrative positions and an equal proportion were in sales. About 7 percent were postsecondary teachers. Among the other types of teachers, the overwhelming majority were working as classroom teachers.

We find that the median time that our respondents had spent in this prior occupation is about three years, although a small minority (between 8 and 27 percent) stated that they had worked at this occupation for more than five years. This is particularly interesting to find among the inexperienced teachers, suggesting that these individuals chose to try out other occupations before turning to the occupation for which they were originally trained or for which they retooled.

Another point of interest is the comparison of average salaries in previous jobs and the current teaching job. Among the inexperienced teachers, we find a 21 percent salary differential between the prior job and the teaching job; among returning teachers, the differential is a little smaller, around 15 percent, but larger (30 percent) among those transferring from private schools. In accordance with economic theory, we find that all these individuals are better off in terms of economic well-being in their current teaching jobs.

It is interesting to compare the current to the previous job along a variety of dimensions. Again, economic theory suggests that individuals would change jobs only if such a change increased their well-being. Of course, in the case of a spouse move, individuals may be rather more constrained in their choices. We felt that comparison of current and previous occupations would be more informative if we grouped respondents by whether or not they had been previously employed in education. Table 3.6 presents these comparisons, along with the chi-squared statistics that test the significance of the observed differences in the distribution of the selected attributes between the two groups. The null hypothesis being tested is one of no difference between those who previously worked in education and those who had not.

The data reinforce the simple economic hypothesis that individuals move to better jobs overall. Almost 80 percent of those working outside elementary/secondary education rate their current job "better."

[2]Research on new recruits to mathematics and science teaching (Kirby, Darling-Hammond, and Hudson, 1989) showed that the primary occupations from which these new recruits are drawn tend to be the administrative/support and managerial/professional fields and earnings on these jobs are generally less than what professionals in these fields make.

Table 3.6

PERCENTAGE DISTRIBUTION OF RESPONDENTS ANSWERING "CURRENT JOB BETTER," BY THOSE EMPLOYED FULL-TIME PREVIOUSLY IN EDUCATION AND THOSE IN OTHER SECTORS

Selected Characteristic	Previous Job			
	Education	Non-Education	Total	χ^2
Overall	67.3	79.6	71.9	19.19*
Salary	76.3	62.3	71.1	16.00*
Potential for salary growth	67.8	56.3	63.5	18.19*
Long-term job security	48.9	58.1	52.4	4.09
Job benefits	63.3	56.0	60.5	3.23
Availability of resources and materials	42.3	37.2	40.4	1.39
Work schedule	38.6	64.9	48.5	40.48*
Manageability of workload	31.4	38.6	34.1	2.76
Influence over workplace policies and practices	41.0	30.5	37.1	18.40*
Intellectual challenge	46.5	59.5	51.4	16.44*
Emotional rewards	44.3	65.3	52.2	23.95*
Job stress	31.4	33.7	32.3	0.39
Respect from colleagues	41.1	46.1	43.0	1.54
Opportunities for professional exchange	48.1	55.8	51.0	5.32
Opportunities for professional advancement	51.8	41.9	48.0	16.50*
Safety of environment	28.5	36.8	31.6	5.92
General work conditions	41.0	47.4	43.4	2.38
No.	318	194	512	

NOTE: * indicates that the chi-square is greater than the critical value of chi-square at 0.05 level of significance; hence the null hypothesis of no difference between the two groups can be rejected.

However, only about two-thirds of those who had previously worked as teachers elsewhere did so, suggesting that these individuals were somewhat more circumscribed in their choices and the difference between the two proportions is significant.

When we asked the respondents to rate the specific characteristics of the current job in comparison to the previous occupation, we find some interesting and significant differences between those who previously worked in elementary/secondary education and those working outside this field. Both ranked current salary as better; however,

prior teachers were much more likely to do so. This is not surprising given that the mean salary for prior teachers was approximately $18,000; salaries for experienced teachers, as we saw earlier, average about $23,000. This represents a substantial increase of almost 27 percent on average. However, for nonteachers, the average salary was almost $21,000, much closer to current salaries. The "potential for salary growth" characteristic also shows the same difference.

Fewer than half of prior teachers felt that their current job was better in terms of long-term job security; these teachers probably lost seniority and vesting when they moved from other schools into the Indiana public school system. Indiana teaching jobs were ranked high in terms of job benefits, however, although poorly in terms of manageability of workload, job stress, and safety of environment. Teachers who transferred to teaching from other occupations, however, tend to be much more positive regarding their current job. For example, the teaching job was rated highly in terms of work schedule, intellectual challenge, and emotional rewards, although like prior teachers, job stress, safety of environment, and influence over workplace policies and practices were matters of concern. Given these individual ratings, the overall, highly positive ratings seem a little inconsistent unless there are unmeasured characteristics that we have not been able to capture with our categorization.

How different types of teachers rank their current teaching job in comparison to their *previous teaching* job (Table 3.7) may have an impact on how long teachers are likely to stay. A real difference is evident between former Indiana teachers and those transferring from out of state. Well over half of returning Indiana public school teachers rate their current job as "better"; almost three-quarters of former Indiana private school teachers do so. In all, almost 85 percent of both types of teachers feel that the current job ranks about the same or better than their previous teaching job. Although teachers transferring to Indiana from other states were also fairly enthusiastic about their current Indiana job, a far higher proportion of them tended to be critical as well. Well over a quarter of them rank their former job as being better than their current job in Indiana. This is not surprising if their choices were somewhat constrained by the area to which they moved or if they lost benefits in the transfer process. We tested for the significance of these differences using a chi-squared test. The computed chi-square was 50.38 and we reject the null hypothesis of no association between these two variables.

Table 3.7

PERCENTAGE DISTRIBUTION OF RESPONDENTS' VIEWS OF PREVIOUS TEACHING JOB COMPARED WITH CURRENT TEACHING JOB, BY TEACHER TYPE

View	Teacher Type				
	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
Current job much better	32.8	29.0	43.0	39.1	33.5
Current job somewhat better	21.5	22.8	30.5	19.6	23.1
Both jobs about the same	30.4	21.6	10.9	13.0	24.1
Former job somewhat better	9.8	12.6	8.6	8.7	10.3
Former job much better	5.5	14.1	7.0	19.6	9.0
No.	451	255	128	46	880

REASONS TEACHERS GIVE FOR THE BREAK IN THEIR TEACHING CAREERS OR THEIR TRANSFERS TO THE INDIANA PUBLIC SCHOOL SYSTEM

Teachers who were not teaching last year were asked the primary reasons for the break in their teaching career.[3] Such information could be useful to school systems in determining whether there are steps that could be taken to prevent teachers from leaving in the first place or whether the majority leave for reasons that cannot be affected by policy. Table 3.8 lists these responses. Regardless of type of teacher, pregnancy/childrearing was the most frequent reason given. Among Indiana teachers, about 15 percent had left to pursue another career, and another 6 to 7 percent left because of school staffing action or merely to take a break from teaching. Most of these appear to be voluntary reasons, unlikely to be affected by policy. Among out-of-state teachers, the next most frequent reason given, after pregnancy/childrearing, was the move to Indiana, either to accompany a spouse or for other personal reasons.

Not surprisingly, the reasons differ greatly by gender. Overall, about 55 percent of women left for reasons of pregnancy/childrearing; another 17 percent had moved either for personal reasons or because of a spouse move. Men, on the other hand, more often left to try another career (43 percent), to pursue further education (13 percent), or to take a sabbatical from teaching (10 percent).

[3]This question did not, of course, apply to first-year teachers or teachers from private or out-of-state schools who were teaching full-time in 1987–88.

Table 3.8

PERCENTAGE DISTRIBUTION OF RESPONDENTS' REASONS FOR LEAVING TEACHING, BY TEACHER TYPE

Reason	Teacher Type				
	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
School staffing action	7.3	3.8	10.0	0.0	6.4
Pregnancy/childrearing	51.1	42.5	45.0	15.0	47.2
Family emergency	0.6	1.9	0.0	0.0	0.8
Sabbatical/break from teaching	6.4	0.0	2.5	15.0	5.0
Try another career	15.2	6.6	15.0	10.0	13.1
Pursue further education	3.8	5.7	10.0	15.0	5.2
Geographic move for personal reasons	4.1	10.4	0.0	20.0	5.8
Spouse move	3.8	22.6	10.0	20.0	9.2
Retirement	0.3	0.9	0.0	0.0	0.4
Illness	1.0	0.9	0.0	0.0	0.8
Other	6.4	4.7	7.5	5.0	6.0
No.	315	106	40	20	481

The reasons for reentering teaching in 1988–89 are much as one would expect from the reasons given for leaving teaching (Table 3.9). Again, these are important in that they provide information on incentives that might bring teachers back into teaching. For example, the four most frequently mentioned reasons were: (a) increased need for extra family income, (b) lessening of childcare responsibilities, (c) dissatisfaction with other job/activity, and (d) the first year a job was offered. The first two, obviously, were cited most often by women. Among out-of-state teachers, completion of Indiana certification requirements also ranked high.

Defining a labor market for teachers requires information about the areas in which teachers taught previously. This can help define a region from which teachers may easily be recruited. Table 3.10 shows that well over half of the teachers come from states other than those surrounding Indiana. Another 17 to 18 percent come from Illinois. Smaller proportions (10 percent or less) come from Kentucky, Ohio, and Michigan. It is clear that the Indiana teacher labor market is much wider than we had anticipated.

Table 3.9

PERCENTAGE DISTRIBUTION OF RESPONDENTS' REASONS FOR REENTERING TEACHING IN 1988–89, BY TEACHER TYPE

Reason	Teacher Type				
	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
First year I was offered a job	11.9	19.1	11.4	14.6	13.5
Offered better teaching job than previous teaching job	3.7	4.6	6.3	12.2	4.6
Completed Indiana certification requirements	4.5	13.9	7.6	19.5	7.6
Completed educational program	4.1	4.0	2.5	7.3	4.1
Child-care responsibilities lessened	19.5	19.1	17.7	7.3	18.6
Increased need for extra family income	23.4	17.3	25.3	17.1	22.0
Became dissatisfied with other job/activity	10.6	10.4	16.5	14.6	11.3
To earn additional retirement credits	2.9	0.1	5.1	2.4	2.6
Leave of absence could not be extended	7.0	0.1	0.0	2.4	4.7
Other	12.3	10.4	7.6	2.4	10.9
No.	512	173	79	41	805

NOTE: Respondents could respond with more than one answer. The table shows the relative frequency of each answer compared to all responses, *not* the proportion of respondents giving each answer.

The most important reason for transferring to the Indiana public school system appears to be related to a spouse's job transfer to Indiana. A little over one-quarter of these teachers preferred to live in Indiana. Among these, about two-thirds had graduated from Indiana colleges.

We were also interested in teachers' reasons for transferring from private to public schools. The responses in Table 3.11 suggest that salary and availability of better resources in public schools are important attractions. Public schools are also seen as more challenging by a small group. Among those transferring from out of state, about two-fifths moved to Indiana because of a spouse's transfer.

Table 3.10

PERCENTAGE DISTRIBUTION OF RESPONDENTS' PREVIOUS STATE OF TEACHING EMPLOYMENT AND REASONS FOR TRANSFERRING TO INDIANA SCHOOLS, BY TEACHER TYPE

State and Reason for Transfer	Teacher Type		
	Migrating	Out-of-State Transfer	Total
State			
Illinois	17.8	17.0	17.7
Kentucky	10.1	8.5	9.8
Michigan	5.8	10.6	6.7
Ohio	10.5	6.4	9.8
Other state	55.8	57.5	56.1
No.	258	47	305
Reason for transferring			
Spouse's job move	43.5	42.6	43.4
Preferred to live in Indiana	22.3	22.2	22.3
Teacher pay better in Indiana	6.5	5.6	6.3
Working conditions better in Indiana	5.2	0.0	4.4
More teaching opportunities in Indiana	3.2	1.9	3.0
Other reason	19.4	27.8	20.6
No.	310	54	364

PATTERNS OF ENTRY INTO TEACHING

A common perception is that individuals enter teaching directly from college and that this group provides the primary supply source for meeting teacher demand. In Sec. II, we saw that returning and migrating teachers constitute important sources of supply; in recent years, they constituted over 50 percent of entering teachers in a given year. This subsection examines in more detail the patterns of entry of each of the three groups into teaching.

Timing of Entry to Teaching

Table 3.12 shows the year that our respondents obtained bachelor's degrees. Only 52 percent of inexperienced teachers received their degree in the school year preceding their entry in teaching. About

Table 3.11

PERCENTAGE DISTRIBUTION OF RESPONDENTS' REASONS FOR TRANSFERRING FROM PRIVATE TO PUBLIC SCHOOLS, BY TEACHER TYPE

Reason	Teacher Type		
	In-State Transfer	Out-of-State Transfer	Total
Spouse's job move	3.1	25.3	8.7
Private school closed	2.7	1.3	2.3
Better pay in public schools	44.9	26.7	40.3
More resources in public schools	21.3	13.3	19.3
More challenging work in public schools	9.3	8.0	9.0
No openings in private schools in local area	3.6	5.3	4.0
Other	15.1	20.0	16.3
No.	225	75	300

one-quarter entered teaching after a one-year delay, whereas another 25 percent entered two or more years after receiving their bachelor's degrees. The delay in entering teaching could be deliberate as individuals choose to pursue a master's degree directly after a bachelor's, to work in a nonteaching job, or to stay at home because of family responsibilities. On the other hand, such a delay may be due to a tight labor market; the individual may choose to work as a substitute teacher or as a teacher's aide hoping to be hired full-time the next year. It may also be caused by an inability to meet certification requirements; the individual may use the additional time to obtain the necessary credentials for certification.

We begin to get a picture of the reasons inexperienced teachers delay entrance after college by looking at other factors. Table 3.13 shows the year respondents received their first Indiana teaching certificates. Among inexperienced teachers, 76 percent received their certificates in the previous year. Since only 52 percent actually received their bachelor's degrees in that year, this shows a significant amount of delayed certification. This occurs either because individuals do not complete the required coursework for certification, do not pass the state-mandated certification test, or simply do not apply for certification immediately. At least some of this delay is probably caused by the state certification test, as the passing rate for the state's "core battery" tests is only about 80 percent.

Table 3.12

PERCENTAGE DISTRIBUTION OF RESPONDENTS' YEAR OF BACHELOR'S DEGREE, BY TEACHER TYPE

	Teacher Type					
Year	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
1987–88	52.4	1.3	0.0	0.8	2.2	24.6
1986–87	26.3	6.6	5.4	13.5	6.5	16.0
1981–85	12.0	14.8	28.8	23.8	28.3	16.7
1976–80	3.4	19.4	21.0	22.2	17.4	12.4
1971–75	4.6	27.8	21.8	16.7	26.1	15.3
1966–70	1.2	19.9	13.6	13.5	10.9	9.6
Before 1966	1.1	10.2	9.5	9.5	8.7	5.3
No.	741	453	243	126	46	1,609

Regardless of the reasons for the lag between receiving a college degree and gaining certification, these data show that the year of certification is a better predictor of immediate entry into teaching than the year that individuals graduate from college. Over 92 percent of inexperienced teachers received their certification within the last two years.

As one would expect, inexperienced teachers are much more likely to have recent bachelor's degrees than are any of the experienced teacher groups. However, some interesting differences emerge among the experienced groups (Table 3.12). Interstate migration of teachers and switching from private to public schools tend to occur closer to the time of receiving the bachelor's degree than does dropping out and returning from Indiana schools. About 58 percent of returning teachers in 1988–89 received bachelor's degrees before 1975, and 40–45 percent of those transferring from private schools and other states had graduated from college before 1975.

Table 3.14 indicates that returning teachers entered teaching somewhat before either migrating or transferring teachers and these differences are significant (chi-square is 28.83). The data reflect the fact that returning teachers are an older, more experienced group than the other groups of experienced teachers, as we saw in Sec. II. Given the loss of seniority that typically occurs when teachers transfer from the private sector or from out of state, it is not suprising

Table 3.13

PERCENTAGE DISTRIBUTION OF RESPONDENTS' YEAR OF FIRST INDIANA TEACHING CERTIFICATE, BY TEACHER TYPE

	Teacher Type					
Year	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	Total
1987–88	75.7	5.1	43.6	6.9	31.1	44.1
1986–87	15.9	6.6	12.8	14.6	20.0	12.8
1981–85	5.8	16.9	15.6	26.2	11.1	12.2
1976–80	0.5	22.0	12.8	17.7	13.3	10.2
1971–75	1.9	24.2	7.8	16.2	13.3	10.6
1966–70	0.1	16.9	4.9	10.0	4.4	6.5
Before 1966	0.0	8.4	2.5	8.5	6.7	3.6
No.	736	455	243	130	45	1,609

Table 3.14

PERCENTAGE DISTRIBUTION OF RESPONDENTS' FIRST YEAR OF FULL-TIME TEACHING, BY TEACHER TYPE

	Teacher Type					
Type	New	Returning	Migrating	In-State Transfer	Out-of-State Transfer	No.
1987–88	100.0	7.5	4.7	12.2	4.3	50.1
1985–86	0.00	15.0	26.2	22.1	27.7	10.7
Before 1983–84	0.00	77.4	69.2	65.7	68.1	39.1
No.	762	452	256	131	47	1,648

to find that these moves are more likely to occur earlier than moves within the state's public school system.

The certification pattern for experienced, returning teachers (Table 3.13) shows that most were certified before 1980; this is consistent with the year of graduation. However, teachers from out of state show a somewhat unexpected pattern. Over 40 percent of migrating teachers and almost 50 percent of out-of-state transfers were certified in Indiana before 1986. This indicates that a significant amount of

migration is probably "returning home" migration. That is, these teachers probably either went to Indiana colleges and obtained certification at that time, or taught in Indiana in earlier years before migrating from Indiana. Thus some teachers entering from out of state appear to have never taught in Indiana before, and some have prior connections to Indiana.

Age at Initial Indiana Certification

Tables 3.15 and 3.16 show the age at which individuals received their bachelor's degrees and first Indiana certification. Because the age of first certification in Indiana is likely to differ by whether these teachers are new, were previously teaching in Indiana, or were previously teaching out of state, we have combined the out-of-state teachers into one category in the following tables, while retaining the remainder of the typology. About three-quarters of inexperienced teachers obtain their bachelor's degrees by age 24; the remainder can be classified as "late" graduates, who obtained their degrees after age 25. However, Table 3.16 shows that about 39 percent of inexperienced teachers do not receive their certification until after age 25. Since only 25 percent receive their bachelor's degrees after age 25, this indicates a significant amount of delay between receiving the degree and gaining certification for many individuals. These individuals may have majored in other subjects in college, and only later decided to become certified.

Among experienced teachers, only about 12–18 percent obtained their degrees after age 25; the younger age for degree attainment among this group probably reflects trends in the age composition of all college students (who have been becoming older on average).

Table 3.17 shows the gap (in years) between the attainment of the bachelor's degree and first Indiana certification. About 20 percent of inexperienced teachers have a gap of two or more years. Surprisingly, this is about the same percentage as for returning teachers. This could indicate that a fairly consistent percentage of teachers decide *after* college graduation to seek certification.

Among out-of-state teachers, about 40 percent obtain their bachelor's degrees and Indiana certification within one year. This is the group of "move and return" teachers. The remainder are probably teachers who graduated and taught in other states, then moved to Indiana and obtained state certification long after their graduation from college.

Table 3.18 shows the percentage of teachers attending school in the previous year. This provides additional insights into teachers' entry patterns. First, these data suggest that for some out-of-state

Table 3.15

PERCENTAGE DISTRIBUTION OF RESPONDENTS' AGE AT BACHELOR'S DEGREE, BY TEACHER TYPE

	Teacher Type				
Age	New	Returning	In-State Transfer	Migrating + Out-of-State Transfer	Total
≤22	39.6	60.4	60.5	58.5	50.6
23	27.3	21.6	22.6	17.7	23.5
24	9.1	6.1	2.4	7.7	7.5
25–29	10.0	6.3	7.3	11.6	9.1
30+	14.0	5.6	7.3	4.5	9.3
No.	728	444	124	311	1,607

Table 3.16

PERCENTAGE DISTRIBUTION OF RESPONDENTS' AGE AT FIRST INDIANA CERTIFICATION, BY TEACHER TYPE

	Teacher Type				
Age	New	Returning	In-State Transfer	Migrating + Out-of-State Transfer	Total
≤22	26.2	45.0	38.8	19.7	31.1
23	23.7	20.5	22.5	10.5	20.2
24	11.5	8.9	5.4	7.3	9.5
25–29	17.3	12.5	17.8	21.0	16.7
30+	21.4	13.1	15.5	41.6	22.6
No.	730	449	129	315	1,623

Table 3.17

PERCENTAGE DISTRIBUTION OF RESPONDENTS' DELAY BETWEEN RECEIVING BACHELOR'S DEGREE AND GAINING FIRST INDIANA CERTIFICATION, BY TEACHER TYPE

	Teacher Type				
Length of Gap (Years)	New	Returning	In-State Transfer	Migrating + Out-of-State Transfer	Total
0–1	79.8	81.0	71.4	39.3	71.3
2–5	11.1	10.5	16.2	19.3	13.0
6–10	4.3	3.1	6.7	13.7	6.0
11+	4.8	5.4	5.7	27.8	9.7
No.	578	390	105	270	1,343

teachers, the delay in entering teaching may be due to the need for additional coursework to become certified. This is suggested by the fact that about 40 percent of them were attending school full- or part-time in the previous year, compared to 31 percent of returning teachers. These data also show that the full-time pursuit of advanced degrees accounts for only a small proportion of returning teachers' activities during their break in teaching: Only 6 percent of returning teachers were full-time students in the previous year. Finally, it is instructive to note that among inexperienced teachers, 62 percent were in school full-time during the previous year, compared with 52 percent who received their bachelor's degrees in the previous year. This indicates that about 10 percent either were pursuing master's degrees or were finishing teacher certification requirements after completion of a bachelor's degree.

Paths into Teaching

One reason for investigating the paths into teaching is to enable us to use these data as inputs into a pc-based model of teacher supply and demand. This model can then be used to analyze the teacher labor market under various policy scenarios and could prove a valuable tool to Indiana policymakers.

The data we have shown here suggest that when modelling teacher supply, it is important to identify the various paths taken into teaching once the bachelor's degree is obtained, especially by those who

Table 3.18

PERCENTAGE DISTRIBUTION OF RESPONDENTS' ENROLLMENT IN COLLEGE OR UNIVERSITY IN THE PREVIOUS YEAR, BY TEACHER TYPE

	Teacher Type				
Length of Gap (Years)	New	Returning	In-State Transfer	Migrating + Out-of-State Transfer	Total
College status					
Full-time	61.9	6.3	3.9	3.6	30.7
Part-time	16.5	25.4	31.5	36.5	23.9
Not enrolled	22.6	68.3	64.6	59.9	45.4
No.	762	460	130	304	1,656

have never taught before. Figure 3.1 shows these entry paths for those inexperienced teachers entering teaching in Indiana in 1988–89. It distinguishes among three main groups—those entering directly after receiving bachelor's degrees, those delaying entry by one year, and those who enter two or more years after receiving degrees. It further splits each group into those receiving their bachelor's degrees before age 25, and those receiving their degrees after.

Only about 45 percent of the inexperienced teacher supply group constitutes individuals aged 20–25 entering teaching directly after college. Another 13 percent are individuals receiving their bachelor's degrees at age 25–45, but who enter teaching directly after obtaining their degrees. About 12 percent of inexperienced teachers enter one year after receiving a bachelor's degree. Those entering two or more years after a bachelor's are further subdivided into two groups: those who received their bachelor's degrees and Indiana certification at the same time (within one year of their degrees) and those who had a significant delay in obtaining certification. The first group is presumably composed of education majors who have delayed entry, and the second group may be noneducation majors who need additional coursework before certification. The former group constitutes about 9 percent of all inexperienced Indiana teachers, and the latter constitutes about 18 percent.

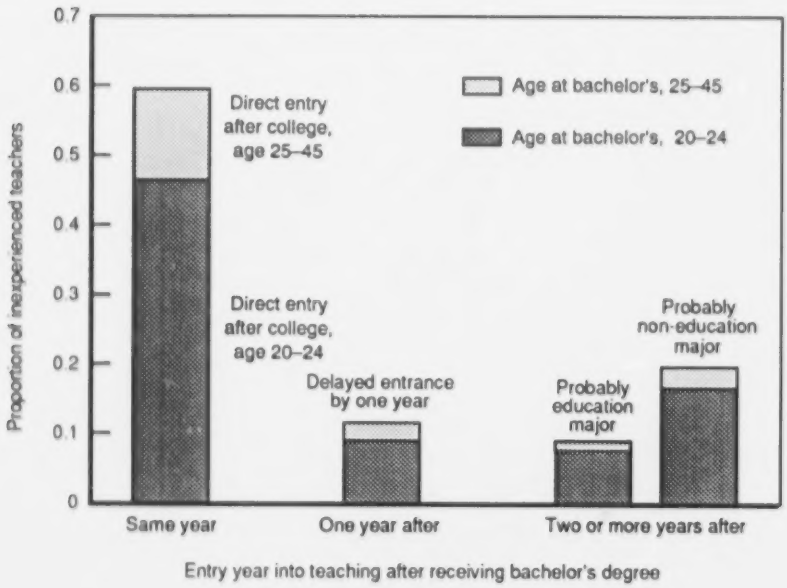

Fig. 3.1—Inexperienced teachers' paths into teaching

The above discussion shows that analyzing and predicting teacher supply is complex because of the different paths that teachers take into teaching. Unlike the traditional view of new teachers as individuals newly graduated from teacher colleges, the pool of inexperienced teachers is actually very diverse; a significant number of them enter teaching years after obtaining their bachelor's degrees, and many become certified later or obtain their bachelor's degrees at older ages.

Immigrants to the state also appear to form two groups: individuals who migrate to Indiana but who have had little or no previous experience in the state, and individuals who return to Indiana to teach after either going to college in Indiana or previously teaching in Indiana. We estimate that the former group constitutes about 60 percent of migrating teachers, and the latter group constitutes 40 percent.

IV. CONCLUSIONS

HISTORICAL TRENDS

The number of new hires has fallen dramatically over time, from a high of over 9,000 in 1970 to a low of about 2,500 in 1982. The composition of new hires with respect to experience, gender, and age has changed markedly over time, with inexperienced teachers now accounting for only between 40–45 percent of all new hires, and well over a third of all new hires being 35 years of age or older. We find that it is the changing composition *within* each group of teachers (inexperienced, returning, or migrating) that is primarily responsible for the trends we see with respect to gender and age rather than the changing proportions of inexperienced to experienced new hires.

These data suggest that (a) looking at proportions of newly graduated teachers who enter teaching may well underestimate the number who eventually enter teaching and (b) there is a fairly large reserve pool of experienced and migrating teachers who are available to fill the demand for new hires. Of course, the counter side to this is the fact that this pool of teachers is getting increasingly older, and with lower attrition rates (shown in Grissmer and Kirby, 1991), the pool may eventually start shrinking. In addition, in 10 to 15 years, as retirements increase, there is likely to be a sharp upsurge in demand requiring aggressive recruiting of new and younger teachers.

RESULTS FROM THE SURVEY

Of the 1,660 teachers constituting the usable, eligible sample, a little under half (46 percent) are first-year teachers who have never taught before. A little over a quarter are returning Indiana public school teachers, and another 16 percent are migrating teachers from out-of-state public schools. About 10 percent are transfers from private schools, the majority of whom are from in-state schools. The teacher labor market appears to be a great deal more fluid than we had originally thought. We find that although Indiana returning teachers have spent the greater part of their teaching careers in Indiana public schools—almost six years—a small proportion have taught both in private schools and out of state although the length of service in both seems to have been rather short. Among migrating teachers, somewhat over a third have taught previously in Indiana public

schools (although their most recent experience has been in out-of-state public schools).

Modelling teacher supply, as our data show, is complex because one needs to distinguish the various paths taken into teaching once the bachelor's degree is obtained. The pool of inexperienced teachers is very diverse and a significant number of teachers enter teaching years after obtaining their bachelor's degrees, with many becoming certified at later times or obtaining their bachelor's degrees at older ages.

The survey allows us to make some inferences regarding the reserve pool for teachers. Of those employed full-time, among the inexperienced teachers we find that about a third were working in teaching either as substitutes or part-time teachers. A little under 20 percent were working in administrative support positions or service occupations, and another 6 percent in managerial/administrative positions. Among returning Indiana teachers, about 40 percent were working in education, mostly as substitutes or aides. About 11 percent were in managerial/administrative positions and an equal proportion were in sales. About 7 percent were postsecondary teachers. Among the other types of teachers, the overwhelming majority were working as classroom teachers.

Data on the reasons teachers leave teaching and the reasons they return to teaching are important in determining whether steps can be taken to affect these decisions. Among women, pregnancy/childrearing was the most frequent reason for leaving teaching. Men tended to leave to pursue other careers or simply to take a break from teaching. Among out-of-state teachers, the next most frequent reason given, after pregnancy/childrearing, for the interruption in teaching was the move to Indiana, either to accompany a spouse or for other personal reasons.

The reasons given for reentering teaching in 1988–89 are much as one would expect from the reasons given for leaving teaching. The four most frequently mentioned reasons were: (a) increased need for extra family income, (b) lessening of childcare responsibilities, (c) dissatisfaction with other job/activity, and (d) the first year a job was offered. Among out-of-state teachers, completion of Indiana certification requirements also ranked high.

POLICY IMPLICATIONS

The data we have presented here have several policy implications. First, a greater degree of cooperation between school districts and businesses, with wider dissemination of information about teaching opportunites in the state, might prove to be a cost-effective method of recruiting. Second, the reserve pool of teachers appears to be larger than we had originally thought, with people being drawn from various administrative and support-type positions and it may prove possible, with low-cost certification programs and scholarships, to attract midcareer switchers, as is being done in a number of states. Third, as the reserve pool of experienced teachers grows older and new hires appear to be increasingly older as well, some thought needs to be given to ways of attracting younger individuals to teaching to help fill the vacancies that are likely to occur in 10 to 15 years. Fourth, as least as far as our data show, there seems little states can do to prevent breaks in service for teachers who leave and later return to teaching. The majority of those who leave appear to do so for personal reasons that are unlikely to be responsive to policy changes. However, we do not mean to imply that the attrition of younger teachers from teaching is not amenable to policy reform. There is ample evidence to show that these teachers leave for a variety of reasons, primarily salary, the work environment, and the extracurricular demands of teaching. Certainly, we need to devise policies to attract and retain these teachers, who otherwise are likely to be lost to teaching.

Appendix A

SURVEY OF NEWLY HIRED TEACHERS IN INDIANA PUBLIC SCHOOLS, 1988–89

SURVEY DEVELOPMENT

To address the issues delineated in the last section, we developed a survey to be administered to all Indiana public school teachers newly hired in school year 1988–89. These new hires were defined as those employed in a full-time teaching position in school year 1988–89 who were not so employed in 1987–88.

Survey Sample

We used the educational personnel tapes provided by the Indiana State Department of Education to obtain a list of all full-time teachers in 1988–89 who were not listed (as full-time teachers) in 1987–88. This population of new hires thus includes not only those hired for teaching positions for the first time, but also those returning to their former teaching position, or to a new position, after a leave of absence from teaching, and those transferring from an out-of-state or private school teaching position. Not included in this population are teachers who have moved from one Indiana public school to another between 1987 and 1988. This means that our analysis looks at "new" teachers from the point of view of the *state* (rather than the local corporation). The initial population of new hires consisted of 3,066 teachers in grades K-12.

Survey Questionnaire

The survey questionnaire focused on five separate topics: (1) current assignment, (2) future plans, (3) work history, (4) teacher labor market experience, and (5) personal background. (See Appendix B for the survey questionnaire.) Specific questions addressed in the survey included the following:

- Current assignment: whether the teacher taught self-contained or departmentalized classes; the number and type

of students taught (in terms of ability); primary teaching assignment; average courseload; and hours spent per week in school-related activities during and after school hours.

- Satisfaction with current assignment and working conditions along a number of dimensions.
- Experience with the Beginning Teacher Internship Program and overall impressions.
- Future plans: likelihood of teaching next year and reasons for considering leaving; likelihood of remaining in teaching given improvements in teaching conditions or salary; importance of various factors in the decision to leave teaching; likelihood of transferring to another school district the following year and the reasons for considering such a transfer; longer-term career plans.
- Previous work history: main activity during the prior school year and the occupation if in the workforce; comparison of prior occupation to the current teaching assignment; reasons for reentering teaching or transferring from another state or private school.
- Labor market experience: process of job search; importance of various factors in the decision to apply to specific school districts; timing of applications and offers; alternative occupations considered.
- Background: educational and demographic profile; marital status; number of children under and over five years of age; salary from various sources, including teaching, summer employment, and total family income.

Pretest

We conducted a small-scale pretest with 14 teachers. The pretest consisted of a two-hour discussion of issues assessed by the survey, followed by completion of the survey instrument, and individual post-survey discussions. Although the pretest respondents were not randomly chosen (they were volunteers recruited by the principals), we felt, that for our purposes, the "representativeness" of the pretest sample was of less concern than the willingness of the pretest group to share their experiences and volunteer feedback on the appropriateness and clarity of the survey questions. We feel that this highly personal, interactive pretest procedure resulted in more useful information for survey design than would have been derived from a larger and more random sample pretested in the more traditional manner.

The 14 teachers who participated in the pretest had varied backgrounds and teaching experiences. Eight were inexperienced new college graduates, one entered the Indiana public schools after teaching in an out-of-state private school, two came from out-of-state public schools, one had been working as a substitute teacher, and one was a former Indiana teacher returning to teaching from homemaking.

SURVEY ADMINISTRATION

The survey was mailed to teachers in May 1989. Two weeks after the initial mailout, a reminder card was sent to all nonrespondents. Two weeks after that, a second packet of materials was sent to all those who had still not returned a survey. Packets included a survey instrument, postage-paid return envelope, a letter of endorsement from the Indiana State Superintendent of Public Schools, and a cover letter explaining the purpose of the study. All correspondence was mailed to teachers at their schools.

We received 1,953 completed surveys from the 3,066 mailouts for an unadjusted response rate of 64 percent. Had the survey been fielded somewhat earlier than the end of May (which was close to the end of the school year), we might have obtained a higher response rate.[1]

Initial analyses of the responses revealed that 288 of the respondents were actually ineligible, either because their responses to an initial screening question revealed that they were not in full-time teaching or because their survey responses indicated that they had taught in Indiana in the previous year.

The former group may be teachers who have transferred during the school year from a full-time teaching position to another position. The latter group of ineligible teachers (i.e., second-year hires) were most likely those who had been hired in school year 1987–88 but after October 1987. The Indiana personnel files list teachers as of October of each school year. Teachers hired after October would be classified by our analysis as new hires in the following year. It is also possible that the respondents simply erred in answering the questions regarding previous experience. We have eliminated these surveys from the

[1]Our original plan was to field the survey in late April rather than May. However, a printers' strike delayed production of the machine-readable survey forms, and subsequently the fielding of the survey by about three weeks. The delay is probably significant because it places the follow-up mailouts at the same time that many Indiana schools were closing for the summer. This probably lowered our response rate, since at this point in the school year teachers are likely to be busier than usual with end-of-the-year paperwork.

analysis. After eliminating these cases, we had a final sample of 1,665.[2]

Normally, one attempts to correct for nonresponse bias in survey data. However, the evidence available indicates little if any response bias in our sample.[3] Thus, the analyses presented in this and other reports in the study are based on unweighted data.

[2]A true response rate could not be calculated because we cannot identify the true universe of teachers who are new hires in 1988–89. This is because we cannot determine how many of the nonrespondents are actually ineligible, i.e., they did not respond because they had self-selected themselves out of the sample, knowing themselves to be ineligible. If we make the assumption that none of these are ineligible, then we get an adjusted response rate of 60 percent (1,665/2,778, eliminating the 288 ineligibles from both the numerator and denominator). However, if we make the assumption that the proportion of ineligibles in the universe of 3,066 teachers is the same as among the respondents (14.7 percent), then we get an adjusted response rate of 64 percent (1,665/2,614).

[3]The question of nonresponse bias in our analytical results from the survey data is moot. Given that we do not have a precise picture of the population of newly hired teachers, we could not compensate for nonresponse bias through some form of weighting. However, we did compare the respondent sample with the overall population along demographic categories and found that, with the exception of gender, the differences between the two were not statistically significant. With respect to gender, we found that the population was 22.4 percent male whereas the respondent sample was only 20.1 percent male. If this difference were indeed real, then our survey responses are biased in those areas in which gender may be a factor, for example, in responses to questions regarding reasons for leaving teaching or reasons for reentering, regarding previous work experience in a sector outside of education, and regarding future plans. However, as we said above, it is difficult to say much about the magnitude of the bias because we do not know whether the difference we observe is an artifact of our incomplete data.

Appendix B

1989 INDIANA TEACHER SURVEY

Survey Purpose

The RAND Corporation, a non-profit research center, is conducting a survey of all Indiana elementary and secondary public school teachers who were not teaching in the Indiana public schools during the previous school year. The survey asks for information on your current teaching position, future plans, work history, teacher labor market experiences, and background. These questions are designed to obtain information useful to the Indiana Department of Public Instruction in understanding, monitoring and predicting new teacher supply, with a particular focus on those aspects of teaching which are most valuable for attracting and retaining a highly-qualified teacher workforce.

Your responses on this survey will be strictly confidential. Individual responses will be combined with all other survey responses to yield group statistics; only these aggregated group statistics will be released to the Indiana Department of Public Instruction or to any other organization or publication. Please answer every question, unless you are asked to skip an item (or section) that does not apply to you. If you are unsure how to answer a question, please give the best answer you can.

Thank you for taking part in this survey.

Statement of Confidentiality

All information that you provide will be regarded as strictly confidential, and will be reported only through aggregated (group) statistics. Any identifying information collected will be used only for the purposes of the study and will not be disclosed or released for any other purpose, except as required by law.

INSTRUCTIONS

Some items will require that you mark ONLY ONE ANSWER. Other items will require that you mark ONE ANSWER OR MORE, depending on how many apply in your case. Here is an example of each type of item:

1. Do you own any house pets? (Mark one answer)

   Yes ..... ①
   No ..... ② → **GO TO 3**

2. What kinds of house pets do you own? (Mark all that apply)

   Dog ..... ○
   Cat ..... ○
   Fish ..... ○
   Bird ..... ○
   Other ..... ○

3. Do you have any children? (Mark one answer)

   Yes ..... ①
   No ..... ②

Some items also ask you to skip to a later item, or to skip to the next section of the survey. In the example above, if you owned no house pets, you would skip Item 2, and continue with Item 3. It is important to follow the "GO TO ..." instructions whenever they appear, to save time and to avoid confusion. If you find that you are attempting to answer a question that seems inappropriate (e.g., it asks where you taught last year, when you were, in fact, not teaching last year), check the previous items to see if you missed a "GO TO ..." statement.

6001 ■○○○■■■○■■■○■○○○○○○○

SECTION 1: YOUR CURRENT ASSIGNMENT

1 How does your school corporation classify your current position? (Mark one answer)

- Regular full-time teacher (including special education) 1
- Part-time teacher 2
- Substitute teacher 3
- Full-time nonteaching corporation employee 4
- Other 5

IF YOU MARKED "1", PLEASE CONTINUE WITH THIS SURVEY. IF YOU MARKED ANY RESPONSE OTHER THAN "1", PLEASE STOP NOW AND RETURN YOUR QUESTIONNAIRE TO DATA RECOGNITION CORPORATION. THANK YOU FOR YOUR TIME.

2 Do you MAINLY teach a self-contained class (one group of students for all or most of the day) or departmentalized classes (different groups of students throughout the day)? (Mark one answer)

- Self-contained class all day 1
- Self-contained class most of the day 2
- Departmentalized classes 3

GO TO 4

3 How many students are currently enrolled in your self-contained class?

students → GO TO 7

EXAMPLE
For this and all grids, if your answer has fewer digits than the number allotted, enter leading zeroes, like this →

4 For the classes you teach:

A How many different preparations do you have on an average day?

1 2 3 4 5 6 7 8

For the classes you teach:

B How many class periods do you teach on an average day?

1 2 3 4 5 6 7 8

C What is the TOTAL number of students you teach?

students taught

EXAMPLE
For this and all grids, if your answer has fewer digits than the number allotted, enter leading zeroes, like this →

5 How satisfied are you with the courses you have been assigned to teach (e.g., would you prefer to teach different courses, fewer courses, etc.)? (Mark one answer)

- Very satisfied 1
- Satisfied 2
- Dissatisfied 3
- Very dissatisfied 4

6 **What is your current PRIMARY teaching assignment field (that is, the one in which you teach the most classes) and what is your SECONDARY assignment field (the one in which you teach the next most classes)? If your secondary assignment field is the same as your primary field, mark the same number in both columns. If your teaching schedule is divided equally between two different fields, mark the one for which you feel most qualified as your primary assignment field, and the other as your secondary assignment field.**

(Mark ONE answer in each column)

	Primary	Secondary
Basic skills: remedial education	1	1
Business education	2	2
Computer science	3	3
English: language arts	4	4
Fine arts (music, arts, drama)	5	5
Foreign language	6	6
Health, physical education	7	7
Home economics	8	8
Industrial arts	9	9
Mathematics	10	10
Reading	11	11
Sciences		
Biology	12	12
Chemistry	13	13
Earth science; geology	14	14
Physics	15	15
General; other science	16	16
Social studies; social science	17	17
Special education	18	18
Vocational education	19	19
All other fields	20	20

7 **Which of the following describes the type of students you teach?** (Mark all that apply)

- Mainly high-achieving students
- Mainly average-achieving students
- Mainly low-achieving students
- Wide range of achievement levels
- Mainly minority students
- Mainly non-minority students
- Mix of racial groups

8 **On average, about how many hours per week do you spend on school related activities during and after school hours?**

During school hours		After school (including weekends)	
	per week		per week
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

9 **How well did your educational training and/or previous teaching experience prepare you for your teaching assignment this year? (If you provide departmentalized instruction in more than one field, answer for your primary assignment field.)** (Mark one answer)

- I was very well prepared ①
- I was well prepared ②
- I was just adequately prepared ③
- I was not adequately prepared ④

10 **What kind of Indiana state teaching certificate do you hold?** (Mark one answer)

- Lifetime certificate ①
- Regular, standard certificate ②
- Provisional (first year) certificate ③
- Temporary or emergency certificate ④

11 **On the whole, how satisfied are you with the teaching experience you have had this year?** (Mark one answer)

- Very satisfied ①
- Satisfied ②
- Dissatisfied ③
- Very dissatisfied ④

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12 To what extent are you satisfied with each of the following working conditions?
(Mark one answer on each line)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Student motivation to learn	1	2	3	4	5
Student behavior	1	2	3	4	5
Support from parents	1	2	3	4	5
Recognition & support from administrators	1	2	3	4	5
Support from other teachers	1	2	3	4	5
Paperwork: clerical support	1	2	3	4	5
Other nonteaching duties	1	2	3	4	5
Time allowed for preparation	1	2	3	4	5
Availability of resources & materials	1	2	3	4	5
Quality of textbooks	1	2	3	4	5
Manageability of workload	1	2	3	4	5
Class size	1	2	3	4	5
Grade and/or course assignment(s)	1	2	3	4	5
Intellectual challenge of assignment	1	2	3	4	5
Physical condition of school & classroom	1	2	3	4	5
Safety of environment	1	2	3	4	5
General work conditions	1	2	3	4	5

13 To what extent are you satisfied with each of the following other work factors?
(Mark one answer for each line)

Current salary	1	2	3	4	5
Potential for salary growth	1	2	3	4	5
Job benefits	1	2	3	4	5
Opportunity for professional advancement	1	2	3	4	5
Opportunity to attend graduate school	1	2	3	4	5
Procedures for evaluating my performance	1	2	3	4	5
Long-term job security	1	2	3	4	5
Summer job opportunities	1	2	3	4	5
Influence over work policies & practices	1	2	3	4	5
Autonomy or control over my own work	1	2	3	4	5
State student testing requirements	1	2	3	4	5
Ability to meet students' emotional needs	1	2	3	4	5
Ability to meet students' intellectual needs	1	2	3	4	5
Extent of students' nonacademic problems	1	2	3	4	5
Commuting distance	1	2	3	4	5
Area of Indiana in which I teach	1	2	3	4	5

14 In this school year, have you been participating in the Indiana Beginning Teacher Internship Program (i.e., was a more senior teacher assigned as a mentor to offer instructional support and assistance)?
(Mark one answer)

Yes ... 1
No ... 2 → **GO TO 23**

15 During this school year, how many times have you been observed in your classroom by your mentor teacher and by your school principal?
(Mark ONE answer in each column)

	Mentor	Principal
Never	1	1
Once	2	2
Twice	3	3
Three times	4	4
Four times	5	5
Five or more times	6	6

16 During an average week, about how much time do you and your mentor teacher spend discussing instructional issues? (Mark one answer)

Less than one hour per week ... 1
One hour per week ... 2
Two hours per week ... 3
Three hours per week ... 4
Four hours per week ... 5
More than four hours per week ... 6

17 Would you prefer to have more or less time spent on each of the following?
(Mark one answer on each line)

	Less Time	Same Amount of Time	More Time
Mentor observations	1	2	3
Time with mentor outside of classroom	1	2	3
Evaluations by principal	1	2	3
Discussion of evaluations	1	2	3

18 **How useful do you find the assistance you receive from your mentor teacher?**
(Mark one answer in each section)

A For dealing with classroom management

Extremely useful ①
Moderately useful ②
Not useful ③

B For dealing with instructional problems

Extremely useful ①
Moderately useful ②
Not useful ③

C For adjusting to the school environment in general

Extremely useful ①
Moderately useful ②
Not useful ③

19 **How experienced is your mentor teacher in providing instruction in each of the following?**
(Mark one answer on each line)

	Very Experienced	Somewhat Experienced	Not At All Experienced
Your grade level	①	②	③
The types of students you teach	①	②	③
The subject(s) you teach	①	②	③
Your teaching style or philosophy	①	②	③

20 **In your opinion, to what extent is the teacher assigned as your mentor an appropriate choice?**
(Mark one answer)

Very appropriate choice ①
Fairly appropriate choice ②
Fairly inappropriate choice ③
Very inappropriate choice ④

21 **To what extent are you satisfied with the following aspects of the Beginning Teacher Internship Program, as they apply in YOUR PARTICULAR CASE?**
(Mark one answer on each line)

	Very Satisfied	Satisfied	Neither	Dissatisfied	Very Dissatisfied
Mentor and Observations					
Availability of mentor	①	②	③	④	⑤
Confidentiality of mentor relationship	①	②	③	④	⑤
Mentor's responsibilities	①	②	③	④	⑤
Frequency of observations	①	②	③	④	⑤
Principal and Evaluations					
Availability of principal	①	②	③	④	⑤
Principal's responsibilities	①	②	③	④	⑤
Evaluation procedures	①	②	③	④	⑤
Frequency of evaluations	①	②	③	④	⑤
Objectivity of evaluations	①	②	③	④	⑤
Accuracy of evaluations	①	②	③	④	⑤

22 **In GENERAL, what is your overall impression of the Beginning Teacher Internship Program?**
(Mark one answer)

Excellent program ①
Good program ②
Fair program ③
Poor program ④

SECTION 2: YOUR FUTURE PLANS

23. ASSUMING THAT YOU WANT TO RETURN, do you think you will be offered a new contract in your current corporation for the next school year?
(Mark one answer)

- Yes ①
- Unsure ②
- No (due to RIF or other reasons) ③

24. What is the probability that you will be teaching next year? (Mark one answer)

- Definitely ①
- Probably ② → **GO TO 28**
- Unsure ③
- Probably not ④
- Definitely not ⑤

25. What is the MAIN reason you are considering not teaching next year?
(Mark one answer)

- School staffing action ①
- Marriage plans ②
- Pregnancy, childrearing, homemaking ③
- To attend school ④
- Spouse: family move ⑤
- Sabbatical leave or other break from teaching ⑥
- Health related reasons ⑦
- To move into nonteaching educational position ⑧
- To move into position outside of education ⑨

IF YOU ANSWERED 1-7, GO TO 28

26. Would you still be interested in seeking a job outside of teaching if:
(Mark one answer on each line)

	Definitely Not ⑤	Probably Not ④	Unsure ③	Probably ②	Definitely ①
A. your school corporation raised its salary scale by $4,000 per year	⑤	④	③	②	①
B. your class size or teaching load was cut by 20 percent	⑤	④	③	②	①
C. you were assigned an aide or other assistance for dealing with paperwork and or special needs students	⑤	④	③	②	①

27. How important was each of the following in your decision to leave (or to consider leaving) teaching?
(Mark one answer on each line)

	Not At All Important ①	Somewhat Important ②	Very Important ③
Salary	①	②	③
Potential for salary growth	①	②	③
Opportunities for professional advancement	①	②	③
Long term job security	①	②	③
Professional prestige	①	②	③
Recognition and support from administrators	①	②	③
Workload: responsibilities	①	②	③
Safety of environment	①	②	③
General work conditions	①	②	③
Availability of materials and resources	①	②	③
Class size(s)	①	②	③
School learning environment	①	②	③
Parental community support	①	②	③
Student achievement levels	①	②	③

28. **Will you seek a job in another school corporation for the next school year?**
(Mark one answer)

- Definitely ①
- Probably ②
- Unsure ③
- Probably not ④
- Definitely not ⑤ → **GO TO 31**

29. **Would you still be interested in seeking a job in another corporation if**
(Mark one answer on each line)

	Definitely Not	Probably Not	Unsure	Probably	Definitely
A. your school corporation raised its salary scale by $4,000 per year	①	②	③	④	⑤
B. your class size or teaching load was cut by 20 percent	①	②	③	④	⑤
C. you were assigned an aide or other assistance for dealing with paperwork and/or special needs students	①	②	③	④	⑤

30. **How important was each of the following in your decision to move (or to consider moving) to another corporation?**
(Mark one answer on each line)

	Not At All Important	Somewhat Important	Very Important
School staffing action	①	②	③
School corporation reorganization	①	②	③
Spouse: family move	①	②	③
Marriage	①	②	③
Geographic location: commuting distance	①	②	③
Available teaching assignment	①	②	③
Salary	①	②	③
Potential for salary growth	①	②	③
Availability of materials & resources	①	②	③
Recognition: support from administrators	①	②	③
Class size(s)	①	②	③
School learning environment	①	②	③
Parental: community support	①	②	③
Student achievement levels	①	②	③
Safety of environment	①	②	③
General work conditions	①	②	③

31. **Within the next five years, how probable is it that you will leave the teaching profession?**
(Mark one answer)

- Will definitely leave ①
- Will probably leave ②
- Unsure ③
- Will probably not leave ④
- Will definitely not leave ⑤

SECTION 3: YOUR WORK HISTORY

32 **When did you first think about entering elementary or secondary teaching as a career?**
(Mark one answer)

- Before high school ①
- During high school ②
- Between high school and college ③
- During first two years of college ④
- During last two years of college ⑤
- After I graduated from college ⑥

33 **Was K-12 teaching your first career choice?**
(Mark one answer)

- Yes ①
- No ②

34 **Were you enrolled in a college or university during the last school year (1987-88)?**
(Mark one answer)

- Yes, as a full-time student ①
- Yes, as a part-time student ②
- No ③

35 **Have you ever been employed full-time in a permanent occupation outside of the elementary and secondary education system? (Do not count summer or other temporary jobs.)**
(Mark one answer)

- Yes ①
- No ②

36 **What was your MAIN ACTIVITY during the last school year (1987-88)?**
(Mark one answer)

- Employed full-time ①
- Employed part-time ②
- Military service ③
- Homemaker ④
- Student ⑤ → **GO TO 42**
- Retired ⑥
- Unemployed ⑦
- Other ⑧

37 **If you were in the workforce in 1987-88, in what occupation were you employed?**
(Mark one answer)

An occupation in the K-12 school system:

- Substitute teacher ①
- Teacher's aide ②
- Classroom teacher ③
- Other school position ④

An occupation outside of the K-12 school system:

- Managerial/administrative occupation (e.g., accountant, personnel officer, management analyst) ⑤
- Professional specialty (e.g., lawyer, engineer, computer systems analyst) ⑥
- Post-secondary teaching ⑦
- Social service specialty (e.g. counselor, psychologist, social worker) ⑧
- Technical support (e.g., technician, nurse, computer programmer) ⑨
- Sales occupation (e.g., retail sales, real estate, insurance sales) ⑩
- Administrative support (e.g., computer operator, secretary, bookkeeper) ⑪
- Service occupation (e.g., chef, child care worker, police officer) ⑫
- Farming ⑬
- Other ⑭

38 **For how many years were you employed in the job you held last year?** (Mark one answer)

- Less than 1 year ①
- 1 year ②
- 2 years ③
- 3 years ④
- 4 years ⑤
- 5 years ⑥
- More than 5 years ⑦

39 **What was your annual salary?** (Round to the nearest $1,000)

$,000.00

40. **Overall, how would you compare your current teaching job to the job you held last year?** (Mark one answer)

- Current job much better ... ①
- Current job somewhat better ... ②
- Both jobs about the same ... ③
- Former job somewhat better ... ④
- Former job much better ... ⑤

41. **How would you compare the following aspects of your current teaching job to the job you held last year?** (Mark one answer on each line)

	Former Job Better	Both Jobs the Same	Current Job Better
Salary	①	②	③
Potential for salary growth	①	②	③
Opportunities for professional advancement	①	②	③
Long term job security	①	②	③
Job benefits	①	②	③
Procedures for performance evaluation	①	②	③
Availability of materials & resources	①	②	③
Influence over workplace policies and practices	①	②	③
Autonomy or control over own work	①	②	③
Manageability of workload	①	②	③
Work schedule	①	②	③
Intellectual challenge	①	②	③
Emotional rewards	①	②	③
Job stress	①	②	③
Professional prestige	①	②	③
Recognition and support from administrators/managers	①	②	③
Respect from colleagues	①	②	③
Opportunity for professional exchange	①	②	③
Continued growth and learning	①	②	③
Safety of environment	①	②	③
General work conditions	①	②	③

42. **NOT COUNTING this school year (1988-89), how many years of K-12 teaching experience do you have in**

A. The Indiana public schools — years

B. Indiana private/parochial schools — years

C. Public schools in other states — years

D. Private/parochial schools in other states — years

IF YOU HAVE NO PREVIOUS K-12 TEACHING EXPERIENCE (YOU ENTERED "00" IN A-D ABOVE) GO TO 53.

43. **In what year did you first begin full-time elementary or secondary teaching?** (Mark one answer)

- 1987-88 ... ①
- 1986-87 ... ②
- 1985-86 ... ③
- 1984-85 ... ④
- 1983-84 ... ⑤
- Before 1983-84 ... ⑥

44. **Prior to this school year, what was the last school year during which you taught?** (Mark one answer)

- 1984-85 or before ... ①
- 1985-86 ... ②
- 1986-87 ... ③
- 1987-88 ... ④ → **GO TO 47**

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45 What is the main reason you took this leave from teaching? (Mark one answer)

- School staffing action ①
- Pregnancy/childrearing ②
- Family emergency ③
- To take a sabbatical or other break from teaching ④
- To try another career ⑤
- To pursue further education ⑥
- Geographic move for personal reasons ⑦
- Spouse move ⑧
- Retirement ⑨
- Illness ⑩
- Other reason ⑪

46 What are the main reasons you decided to re enter teaching in THIS school year? (Mark all that apply)

- First year I was offered a job ○
- Was offered a better teaching job than previous teaching job ○
- Completed Indiana certification requirements ○
- Completed educational program ○
- Child care responsibilities lessened ○
- Increased need for extra family income ○
- Became dissatisfied with other job or activity ○
- To earn additional retirement credits ○
- Leave of absence could not be extended ○
- Other ○

47 How would you compare your current teaching job to your previous teaching job? (Mark one answer)

- Current job much better ①
- Current job somewhat better ②
- Both jobs about the same ③
- Former job somewhat better ④
- Former job much better ⑤

48 In what state was your most recent prior K-12 teaching experience? (Mark one answer)

- Indiana ① → **GO TO 51**
- Illinois ②
- Kentucky ③
- Michigan ④
- Ohio ⑤
- Other state ⑥

49 Why did you transfer to the Indiana school system? (Mark all that apply)

- Spouse's job move ○
- Preferred to live in Indiana ○
- Teacher pay is better in Indiana ○
- Working conditions are better in Indiana ○
- More teaching opportunities in Indiana ○
- Other reason ○

50 When you were hired by an Indiana school corporation, did you receive full credit for your out-of-state teaching experience? (Mark one answer)

- Yes, for salary and pension purposes ①
- Yes, for pension purposes only ②
- No ③

51 Was your most recent prior teaching experience in a public school or in a private or parochial school? (Mark one answer)

- In a private or parochial school ①
- In a public school ② → **GO TO 53**

52 Why did you switch to the public school system? (Mark all that apply)

- Spouse's job move ○
- My private school closed ○
- Better pay in public schools ○
- More resources in public schools ○
- More challenging work in public schools ○
- No openings in private schools in local area ○
- Other ○

SECTION 4: YOUR TEACHER LABOR MARKET EXPERIENCE

53. In school year 1988-89, did you return to teach in the same school corporation after a leave of absence? (Mark one answer)

Yes ①
No ② → **GO TO 55**

54. Did you apply to any other school corporations for a teaching position during your leave of absence? (Mark one answer)

Yes ①
No ② → **GO TO 77**

55. What sources of information were available to help you decide on which school corporations to apply, and which were most useful to you?

(Mark all that apply in each column)

	Available Sources	Useful Sources
Recruiters who came to my college/university	○	○
Recruitment conference	○	○
College advisor	○	○
Job placement service	○	○
Personal knowledge of corporation(s)	○	○
Information I gathered from corporation(s)	○	○
Recommendations from friends, relatives, or other teachers	○	○

56. To how many INDIANA school corporations did you apply while seeking your current job?

corporation(s)

57. How many of the INDIANA school corporations to which you applied offered you a position for 1988-89? (Mark one answer)

1 2 3 4 5 6 7 8 9

58. In the grids below, enter the school corporation number (from the enclosed blue pages entitled "Indiana School Corporation List") of each Indiana corporation **TO WHICH YOU APPLIED** during the last year (1988). Indicate the corporations in order of preference at the time you applied. If more than 4, mark your top 4 choices.

First Choice	Second Choice	Third Choice	Fourth Choice

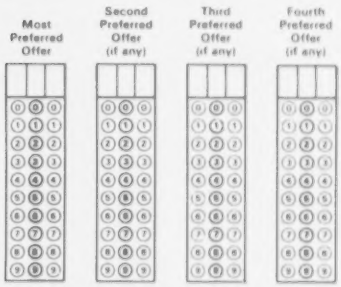
59. How important were each of the following in determining your **MOST PREFERRED** school corporation? (Mark one answer on each line)

	Not Important	Somewhat Important	Very Important
A. Located in a rural area	①	②	③
B. Located in a suburban area	①	②	③
C. Located in a large city	①	②	③
D. Geographic location near family or friends	①	②	③
E. Geographic location near current home	①	②	③
F. Availability of openings	①	②	③
G. High salary levels	①	②	③
H. Mostly high achieving students	①	②	③
I. Mix of student achievement levels	①	②	③
J. Many special needs students	①	②	③
K. Assignment matching my preferred grade(s)	①	②	③
L. Assignment matching my preferred subject areas	①	②	③
M. Opportunity to teach upper level courses	①	②	③
N. Up to date instructional materials and equipment	①	②	③
O. Administrative staff I respect	①	②	③
P. Adequate instructional support staff	①	②	③

60. Which characteristic was MOST important in determining in which corporation you most preferred to work? (In the circles below, mark the ONE letter from Item 59.)

A B C D E F G H I J K L M N O P

61. In the grids below, enter the school corporation number of each Indiana corporation THAT OFFERED YOU A POSITION for this school year (1988-89), beginning with your most preferred offer.



IF YOU RECEIVED ONLY ONE OFFER, GO TO 63.

62. From the job offers you received, how does your first-choice offer compare to your second-choice offer on each of the following characteristics?
(Mark one answer on each line)

	Cannot Compare	Applies More to Second Choice	Applies About Equally	Applies More to First Choice
Located in a rural area	1	2	3	4
Located in a suburban area	1	2	3	4
Located in a large city	1	2	3	4
Geographic location near family or friends	1	2	3	4
Geographic location near current home	1	2	3	4
High salary levels	1	2	3	4
Mostly high achieving students	1	2	3	4
Mix of student achievement levels	1	2	3	4
Many special needs students	1	2	3	4
Assignment matches my preferred grade(s)	1	2	3	4
Assignment matches my preferred subject areas	1	2	3	4
Opportunity to teach upper level courses	1	2	3	4
Up-to-date instructional materials and equipment	1	2	3	4
Administrative staff I respect	1	2	3	4
Adequate instructional support staff	1	2	3	4

63. How many Indiana corporations invited you to interview with them? (Do not count interviews held on a college campus.)

0 1 2 3 4 5 6 7 8 9+

64. How many interviews did you accept?

0 1 2 3 4 5 6 7 8 9

65. In the lines below, mark the month in which you (A) placed your first job application, (B) placed your last job application, (C) received your first interview request, (D) received your last interview request, (E) received your first job offer, (F) received your last job offer, and (G) accepted your current job.
(Mark "8" in lines B, D, or F if you placed only one application, received only one interview request, or received only one offer.)
(Mark one answer on each line)

	Not Applicable	September or later	August	July	June	May	March-April	February or before
A. First application placed	1	2	3	4	5	6	7	8
B. Last application placed	1	2	3	4	5	6	7	8
C. First interview request	1	2	3	4	5	6	7	8
D. Last interview request	1	2	3	4	5	6	7	8
E. First offer received	1	2	3	4	5	6	7	8
F. Last offer received	1	2	3	4	5	6	7	8
G. Accepted current job	1	2	3	4	5	6	7	8

66. When looking for a teaching job, did you do any of the following?
(Mark all that apply)

- Contact principals on your own initiative
- Call corporations after sending application
- Utilize friends or relatives as contacts

67 During your job search IN INDIANA, how satisfied were you with each of the following?
(Mark one answer on each line)

	Very Dissatisfied	Somewhat Dissatisfied	Somewhat Satisfied	Very Satisfied
Availability of information on job openings	1	2	3	4
Availability of openings	1	2	3	4
Consistency of application forms	1	2	3	4
Treatment received during interviews	1	2	3	4
Timing of feedback on applications	1	2	3	4
Timing of feedback on interviews	1	2	3	4
Timing of job offers	1	2	3	4
Match of actual job to promised job	1	2	3	4
Fairness of hiring process	1	2	3	4
Overall job search process	1	2	3	4

68 On a five point scale, how would you rate the difficulty of the job market for teachers in your grade level and / or subject area in Indiana?
(Mark one answer)

Very easy to find jobs				Very difficult to find jobs
1	2	3	4	5

69 When you were on the job market, did you have any of the following "connections" to the corporation that hired you?
(Mark all that apply)

- I student taught here
- I substitute taught here
- I had another job here (aide, etc.)
- I had friends or relatives working here
- I had other connections
- I had no connections

70 Had you applied for a teaching position in Indiana in a previous year (i.e., before 1988)?
(Mark all that apply)

- Yes, I applied for a position in 1987
- Yes, I applied for a position in a year prior to 1987
- No

71 In this school year, to how many states OTHER THAN INDIANA did you apply for a teaching position? (Mark one answer)

0 1 2 3 4 5 6 7 8 9+

IF NONE, MARK "0" AND GO TO 73

72 To which other states did you apply?
(Mark all that apply)

- Illinois
- Kentucky
- Michigan
- Ohio
- Other state(s)

73 For this year, did you apply for any full-time jobs other than teaching?
(Mark one answer)

- Yes (1)
- No (2) → **GO TO 77**

74 For what other occupations did you apply?
(Mark all that apply)

An occupation in the K-12 school system:

- Substitute teacher
- Teacher's aide
- Other school position

An occupation outside of the K-12 school system:

- Managerial / administrative occupation (e.g., accountant, personnel officer, management analyst)
- Professional specialty (e.g., lawyer, engineer, computer systems analyst)
- Post-secondary teaching
- Social service specialty (e.g., counselor, psychologist, social worker)
- Technical support (e.g., technician, nurse, computer programmer)
- Sales occupation (e.g., retail sales, real estate, insurance sales)
- Administrative support (e.g., computer operator, secretary, bookkeeper)
- Service occupation (e.g., chef, child care worker, police officer)
- Farming
- Other

75 Did you receive any job offers from these other occupations?
(Mark one answer)

Yes ①
No ② → **GO TO 77**

76 How would you compare the following aspects of your current teaching position to the other position you were offered? (If you were offered more than one other position, compare your current position to the position you most seriously considered.)
(Mark one answer on each line)

	Cannot Compare	Better in Other Outside Position	About the Same	Better in Current Teaching Position
Salary	①	②	③	④
Potential for salary growth	①	②	③	④
Opportunity for professional advancement	①	②	③	④
Long-term job security	①	②	③	④
Job benefits	①	②	③	④
Autonomy or control over own work	①	②	③	④
Work schedule	①	②	③	④
Intellectual challenge	①	②	③	④
Emotional rewards	①	②	③	④
Professional prestige	①	②	③	④
Opportunities for professional exchange	①	②	③	④
Continued growth and learning	①	②	③	④
Safety of environment	①	②	③	④
General work conditions	①	②	③	④

SECTION 5: YOUR BACKGROUND

77 Did you graduate from a high school in Indiana?
(Mark one answer)

Yes ①
No ②

78 Did you graduate from a college in Indiana?
(Mark one answer)

Yes ①
No, I graduated from a college in another state ②
No, I did not graduate from college ③ → **GO TO 83**

79 What is your highest attained degree?
(Mark one answer)

Associate ①
Bachelor's ②
Master's ③
Specialist or six-year certificate ④
Ed.D. ⑤
Ph.D. ⑥

80 In what year did you receive your bachelor's degree and your master's degree?
(Mark NA if you do not have the degree listed.)

Bachelor's Degree 64

19 ☐☐

Master's Degree 65

19 ☐☐

81 Did your undergraduate coursework fully prepare you to receive an Indiana teaching certificate?
(Mark all that apply)

Yes ○
No, I lacked subject area coursework ○
No, I lacked education coursework ○
No, I lacked student teaching experience ○

82 **Based on a four-point scale (with A = 4 and D = 1), in what range were your college grades?** (Mark one answer)

- 3.75 - 4.00 ①
- 3.25 - 3.75 ②
- 2.75 - 3.25 ③
- 2.25 - 2.75 ④
- 1.75 - 2.25 ⑤
- 1.75 or below ⑥

83 **In what year did you receive your first Indiana state teaching certificate? Count provisional, but not emergency certificates.** (Mark "NA" next to year if you have never held an Indiana teaching certificate.)

19 [ ][ ] 64

84 **Compared to the best teacher you know, how would you rate your current teaching ability?** (Mark one answer)

- Excellent ①
- Above average ②
- Average ③
- Below average ④
- Well below average ⑤

85 **What is your base teaching contract salary (excluding extracurricular duties)?** (Round the the nearest $1,000)

$ [ ][ ] ,000.00

86 **In addition to your base teaching salary, how much do you earn under supplemental school contracts during the school year (e.g., for serving as coach, band instructor, etc.)?** (Mark "NA" if you have no supplemental school contracts.)

$ [ ][ ][ ] .00 64

87 **During the school year, do you hold another part-time or full-time job outside of your school corporation?** (Mark one answer)

- Yes ①
- No ② → **GO TO 89**

88 **How much do you earn from employment outside your school corporation during the school year?** (Round to nearest $1,000)

$ [ ][ ] ,000.00

89 **Do you expect to hold a paying job this summer?** (Mark all that apply)

- Yes, in my school corporation
- Yes, outside of my school corporation
- Unsure
- No → **GO TO 91**

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90 What is your expected income from this summer work?

$ .00

91 Do you have a spouse that is employed either part time or full time? (Mark one answer)

Yes, my spouse is employed full time ①
Yes, my spouse is employed part time ②
No, my spouse is not employed ③ → GO TO 93
No, I am not married ④

92 What is your spouse's annual salary? (Round to the nearest $1,000)

$,000 00

93 What is your total family income, from all sources? (Round to the nearest $1,000)

$,000 00

94 HOW MANY children do you have who are

5 years old or under (0) ① ② ③ ④
Over 5 (0) ① ② ③ ④

95 Please use the space below to give us any suggestions you have for improving either the job search process or a teacher's first year in an Indiana public school.

THIS COMPLETES THE QUESTIONNAIRE. THANK YOU FOR ASSISTING US IN THIS IMPORTANT RESEARCH. YOUR TIME AND EFFORT ARE MUCH APPRECIATED.

Please return the completed questionnaire as soon as possible to Data Recognition Corporation in the postage-paid envelope provided.

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